RAILWAY MODELLER

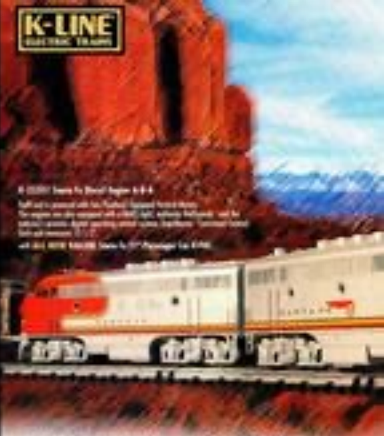
For every BRITISH RAILWAY enthusiast

FREE partwork inside

RAILWAY MODELLING EXPLORED

PLUS MANY REGULAR RM FEATURES

K-LINE SUPER STORES



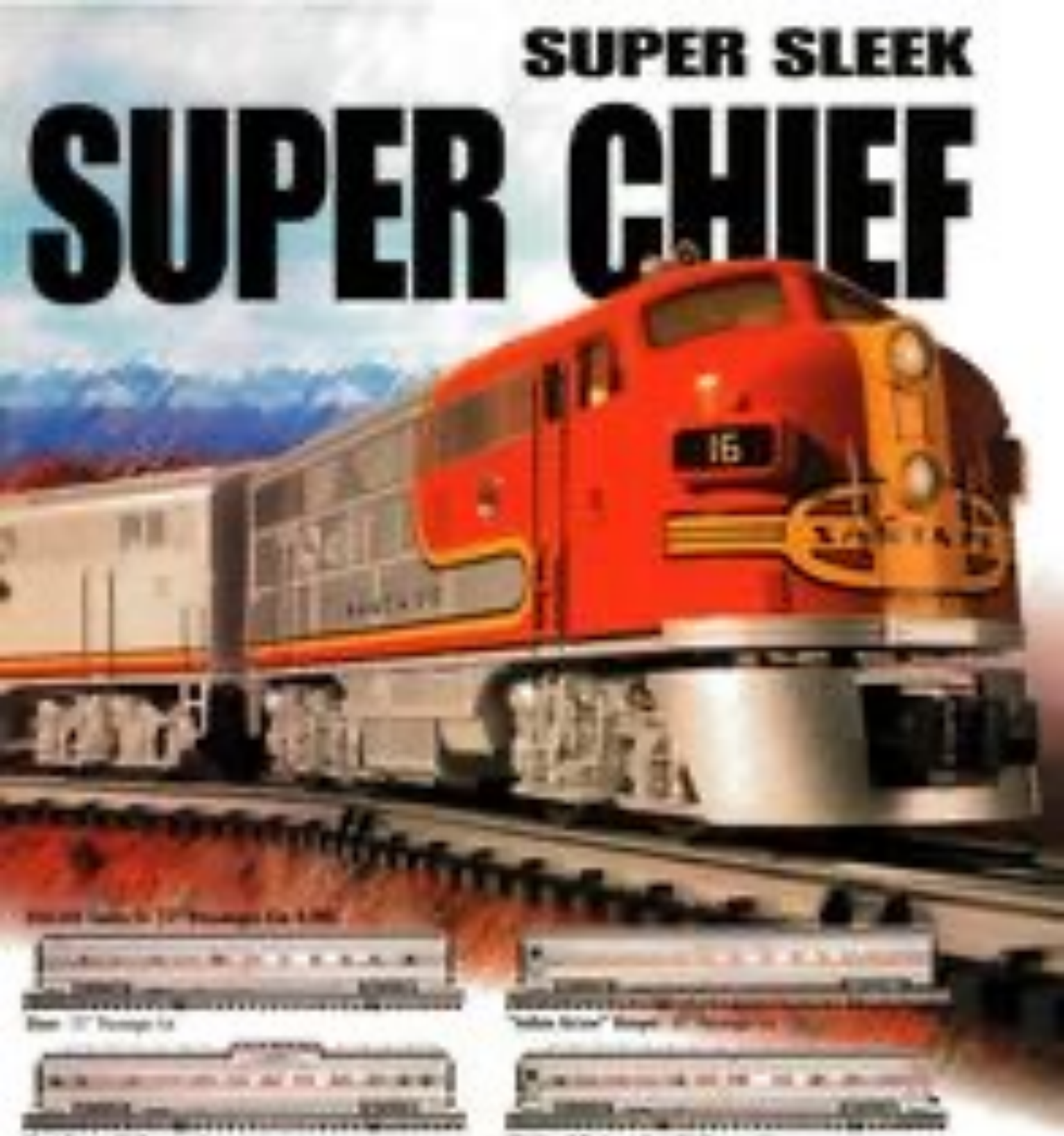
Santa Fe 21" Passenger Car Features:

Santa Fe F-3 Diesel Engine Features:

- 4-Wheel Drive
- Die-Cast Trucks and Wheels

SUPER SLEEK

SUPER CHIEF



Pecorama

GARDENS, GAMES AND TRAINS

For Inspiration

and Family Fun

FEATURES

318
[illegible]

324
[illegible]

327
[illegible]

330
[illegible]

333
[illegible]

336
[illegible]

340
[illegible]

Between 342 & 343
[illegible]

341
[illegible]

346
[illegible]

348
[illegible]

350
[illegible]

352
[illegible]

354
[illegible]

Coming next month

On 22 July

[illegible]

[illegible]

FREE -

[illegible]

[illegible]

01297 20580

RATIO

RAILWAY MODELLER

MORE ROOM OUTSIDE

EDITOR'S DESK

Inside the CTT workshop

The "who, what, and why" of our toy train reviews

We want to test a new product or it's time to review all the new. We talk at hobby events, at train shows, on conventions on the telephone, and through e-mail. Many of the issues things that we build in the real world like new engine models of turn trains, and accessories. But we don't do every story the best basis of CTT. So to assist with you the "who, what, where, when, and why" of our reviews.

We welcome readers' letters, here we go.

■ Who: The CTT staff and occasionally outside contributors with specific expertise are responsible for testing trains. Staff members Bob Ryder, Lionel, one of the writers and coordinates the review for these trains. We bringing one, part of locomotive needs, our review process consistency in our comments and we review the experience of gain in the views on customers as well trains.

■ What: CTT reviews any trains and related products that are available on the open market. We focus on products that have the broadest appeal while serving the collectors in products representing collectible value. Sometimes we review trains and accessories that are limited production, either lower or less than it was built in the past.

■ When: We test products as promptly as they become available.

■ Where: Trains and other accessories are tested here at our editor workshop and by staff members' home layouts. We prepared them our workshop layout and review them with their different styles of track and the different controls we have to provide a variety of testing environments.

■ Why: We test trains and accessories for you, the readers of CTT, to gain more in-depth understanding of new products and how they can enhance your enjoyment of our hobby. We also test products for the benefit of manufacturers, retailers, or advertisers.

■ How: We test products as they are intended to be used. We run locomotives and rolling stock. We build sets to meet the needs of our users. We operate trains for hours. We also test additional components, if provided, to help readers use them. We believe you can be informed. Some reviews incorporate historical data and tracking issues. Also, every now and then readers open accounts of technicians and provide a building to assist by the writers.

We know you have a lot of choices in the hobby and we appreciate your support. Now, please read on and enjoy!

Alan Bomarito

CLASSIC TOY TRAINS

[illegible]

Publisher/Editor/Designer [illegible]
Phone [illegible]
E-mail [illegible]

[illegible]

Subscription rates [illegible]

Reproduction & Permissions [illegible]

Submissions [illegible]

Available back issues [illegible]

Postmaster [illegible]

BOX TOPS.

CLASSIC TOY TRAINS

MADISON HARDWARE CO.

LIONEL AUTHORIZED - SALES - SERVICE - PARTS

IF IT'S MADE BY *LIONEL*, CHANCES ARE, YOU'LL FIND IT AT *MADISON*!

THE MADISON HARDWARE CO. TRADITION LIVES ON!

Need your train repaired? We have qualified personnel to handle the repair and refurbishing of your item.

Looking for a deal? We have frequent sale items. Just send us a fax at [illegible] or access postage delivery.

Feel like shopping? Call and schedule a "visit & carry" day. Come on in, set out the train layouts, shop at your heart's content and check out our daily specials.

Looking for a particular item? We offer for sale both original Lionel and Madison Hardware replacement parts, accessories and product. Fit many ages & ranges.

Have a question? Call, write, fax us a mail us. We're the team experts! Remember to include your return address.

SPECIAL PACKAGE OFFER FOR LCCA-LOTS-TCA 2000 CONVENTION ATTENDEES ONLY

$125.00 ea.

#6-52167 Palace w/ Madison Hardware Vans ($89.95)
#6-52168 Canal Anniversary Car ($94.95)
Limited Edition Club Convention 2000 Billboard ($19.95)
Madison Hardware Co. Logo Pin ($5.00)
Coach Logo Pin ($5.00)
Total ~~$214.85~~
Save $19.90

Limited to 300 LCCA attendees

We've opened our

Within the store, Lionel visitors to [illegible] will [illegible] and [illegible] Lionel's archives are a snapshot of the company's history from the [illegible] each decade, holding [illegible] when their trains grow [illegible] find hard-to-[illegible] rare-of-a-kind [illegible] from the 1930 through today, as well as production samples of a vast percentage of everything Lionel made during that time period. Store [illegible] will [illegible] learning a lot in the process. "What if [illegible]

Lionel Crew Stadium Set
#6-38535

vault for you!

LIONEL

National Model Railroad Association

Headquarters office • [redacted]

National Officers

[redacted]

Department General Chairs

[redacted]

Regional Trustees and Presidents

[redacted]

Future NMRA National Convention Dates and Information

[redacted]

By Bob Charles
NWBA President

Priceless Memories

July is convention month for NWBA, and this column often posts the names of NWBA and our events. I remember this year will signal the completion of six years as your President. Inevitably, my mind rises to the conclusions of these years and some of the memorable events that have occurred.

Now, our conventions are usually somewhat different from the average member. You have the opportunity to actually attend the bowling events of the week. As Convention President, my schedule is quite full of NWBA business and must be dealt with throughout the week. Therefore, there is little time to actually become involved in social networking, as I would prefer to do. Before you start thinking sorry for me, please know that convention week is the busiest and most satisfying week of the year. However, the memories and total picture are probably different from every one you run into, because I'm sure each one is unique.

Practically every company in USA is responsible in one way or the other to which I took office as your President. It was a wonderful week and an very well attended, but more able to do several things together as One and up the Columbia River tour support and she got a remarkable luck out of actually joining the college class of ladies come money, retirees up the river under the mountain eye of the Cayuse. I wish you could have seen the guys on the back. A nice gesture. Then stop to bet here will be the best convenience for ten cities we never enjoy. I am really looking forward to her attendance.

1999 in Indiana was the year Nick Young (yes, the name and year sound of a bowler) came to host our many years. Quickly, he made his way through with hardly a ripple, taking it all down one or two (although it was simply not the score it is upon him. On the same day, three of us who are hardly golfers took to the links. It do was one day as a "fourth day" or as the staff refers to it, "Get out of work day," as this is typically more to do for the town shows. Temperatures hovered above 100 degrees where no wind left, and our reasons as the day progressed. So all, we still had a good time. The Saturday evening banquet was held in the college cafeteria serving options. What a wise choice! The entertainment was great, and all that attended had a great time.

1998 in Long Beach was events for the outstanding California hostfest we experienced the same week. Early in the week I was walking through the lobby when I spotted a friend from Nuremberg, Harold Bobbs, just arriving at the convention from the colonial station. We had not kept of each commitment to his face, and was obviously feeling quite low. As I came across the lobby to greet him, the sight changed in size of his and greeted Harold. That moment he no thought he just heard a song was forbidden. There was a big surprise. Bob Martinez's hangover experience of "Bowlin' College and two more nights," delivered with zest, a smile through the entire presentation. Tonight the audience had been roaring from their faces to laughter, was unanimously the highlight of the banquet that year.

Bob Charles

1997 in Montreal was quite a change. It began with a romantic fishing the hotel and an Anniversary night at the Beard accredited for every morning. We spent two hours in the various bathrooms of the hotel, as to not convey as we walked by the "all clear." We have heard that the romantic town crashed down walked a half-mile. At the start, figure, the banquet provided a high point when Craig Anderson made a presentation on behalf of the Lauderdale Dealers, project of the Chris Kids Ten Rehab Foundation in Orlando. Hearing for his daughter Amber, it is a project strongly supported by NWBA. King realized the benefits of Chris Kids Ten Rehab as memorials of volunteer and Bob Hamilton who now due facility, and the value of the support of the NWBA. There was not a dry eye in the house.

Kansas City hosted the 1996 event, and was an outstanding success. We arrive to a flood and when to exceed the weather for the week was fantastic. The Hyatt group provided some extremely reasonable weekend to bank display. The accessible of Jackson Park was problems, however worked excellent Hallmark with a truly experienced romantic that came alone and recently did another bowl-ups on the weekend. Many representatives of the Tampabay romantic outbreak group, HARBOR attended along with the Managing Director of Bloor. Their presence and participation, and that of quite a few of our romantic members, underscored the importance of format and reflection of one anniversary.

Last year in St. Paul we learned that love and humidity are not the only possessions of our southern region. It was probably the hottest convention I have attended with temperatures of 114 degrees showing outside the convention center on Sunday. At the end there and beginning since 1979. Even Lauderdale will be history for comparison when we arrive in two years. The NWBA Award College program played to nine winners, with participants coming from all over the world. It was displeasure to see a town love old girl currently am traveling a car the real train with close comings from a Master Model Railroader. I'll bet she becomes a real model railroader in her given. Teddy Ukrainy one of later over the bowling performance rookies up award two dollars and hasn't quit many years before—the last time the convention was held in the Twin Cities.

This year, less than three seasons to being a great event. The banquet and concludes the convention with be held on the 12th floors in moments before. The banquet event is available with and without entertainment, and includes your choice and a view of the World Way B runways. As the time of this writing, tickets should not go going fast. I hope you have the opportunity to attend the 2000 free, free convention to make some memories for you and your family.

Reminder

Contact name to be accepted for attendance and indicate changes necessary and to be received in that time.

Practice Scrimmage: Monday-Tuesday 10:00 and 6:00 pm
Judging: Wednesday 9:00 am-5:00 pm Open 4-6 Training
Awards: Wednesday 5:00 pm
Meeting Minutes: Thursday 9:00 am-5:00 pm
Picking: Friday 9:00 am-12:00 pm

Blowing off Steam

Potentially harmful

Correction

HERITAGE

PROTO 2000 presents

USRA 0-8-0 STEAM LOCOMOTIVE

- Four-Unit Sound Applied Cutoff Mode on the Locomotive and Tender including a Prime Quill, Sharp Blowdown of the Steam and Realistic Whistle Chuffs
- Three Speed Low-Boot 2 Scale Miles Per Hour and up to 30 Scale Miles Per Hour Top Speed
- NEW Operator Strength, 21" Radius Curves and 24 Diameter
- Weighted Cast Aluminum Tractive Effort - Pulls 40 or More Cars
- 8 Wheel Drive w/ Electrical Pickup — 21 DCC Ready
- 2 Axle Spun Weighted Underframe with Machined Pinpoint
- Nickel Silver Rigid Wheels with NMRA Contours
- Authentic Painting and Lettering
- Operating and Illuminated Headlight
- Equipped with NMRA DCC Couplers
- 10-Pole Skeleton Motor with Maximum Force and Synchronization
- Certificate of Quality

Preserving the Heritage

Suggested Retail Price $229.95

Glitch

Recently the NMRA experienced a computer system "glitch" that resulted in a volume of mail from members. The annual NMRA calendar was mailed in December to each of our members. I received an e-mail from a member who had received his calendar in January. Apparently, our computer included in the follow-up mailing letter of our members who had responded. After the mailing went out, your letters figured an identity a problem with the letters in the mailing label generator.

The computer was instructed to "exclude" those members who had responded to return their own program but was "exclude" property from even them this letter? It seems that if you had previously responded to the calendar mailing, the programmers were set to "exclude" you from the follow-up. That worked fine up to a point. If you had any other type of "transaction," such as the purchase of a Heritage Collection car, your original letter, or something similar, the program did not "exclude" you from the mailing. Evidently, there was no way to anticipate this occurrence.

Our programming consultant has completed working on the problem, and it is corrected. Please allow me to publicly apologize to those members who were adversely included in that follow-up mailing. We appreciate your patience and understanding. It doesn't not occur.

— Bob Charles
NMRA President

National Train Show Guide

San Jose, California • August

special pull-out section

Exhibitor Guide

Alphabetical Listing

Booth No.	Company	City/State
[illegible]	[illegible]	[illegible]

SAN JOSE McENERY CONVENTION CENTER

August 4 - 6, 2000

MEN
WOMEN
MEN
WOMEN
WOMEN
MEN
Booth Numbers

CON-CESSIONS
MEN
TO MEETING ROOMS
WOMEN
MEN

CABOOSE HOBBIES

555 S. Broadway - Denver, CO - 80209
store: (303) 777-6766 fax: (303) 777-6028

Store Hours - Monday through Friday: 9:30 a.m. - 6:00 p.m.
Saturday - 10:00 a.m. - 5:30 p.m. Sunday - Noon - 5:00 p.m.

Shopping Cart

New To the Hobby?

Brass Department

Book Department

Videos

New Releases

Kids Caboose

Chili House

Used Collectibles

Information

Clinic Schedule

Map to the Store

Guestbook

Links

Privacy Notice - Caboose Hobbies does not sell or share any customer information with third parties. We will only request and keep information which is required to process orders and to send sale notifications. Your on-line orders are encrypted and sent to a secure server. Caboose Hobbies has grown into the world's largest train store only by gaining and keeping your trust.

www.cabooseHobbies.com

C

is for

CABOOSE

We're more than just a Web page

Don't be fooled by those glitzy e-business ads. When it comes to trains, Caboose Hobbies is the leader with a staff of 95 people and 80,000 products all in a real model train store.

www.cabooseshobbies.com

THEY DON'T CALL US THE BIGGEST FOR NOTHING.
THE BIGGEST LITTLE RAILROAD IN AMERICA

Simplify Train Detection

HO Wheelsets with Built in Resistors use with Signaling Solutions, Integrated Signaling Systems, Detex Electronics and other systems

Jay Bee

Part No.	Description	Price
	33" Wheelset Code	
	36" Wheelset Code	
	33" Wheelset Code	
	36" Wheelset Code	

Available at your Dealer

Coming in "IV" Scale!

KEY IMPORTS Inc

The Key to Quality

P.O. Box 1246
Rogue River, OR 97537

The Southern Pacific AC-5, AC-12 & AC-9 Cab Forwards

ATTENTION!

Riverossi & IHC Passenger Car Owners

Monterey Metal Coil Knuckle Spring

Replacement Couplers

NOW AVAILABLE

2 Pair $3.99

McHenry™ Couplers

AMI Instant Roadbed

Try it yourself for FREE at NMRA 2000 San Jose

Just Click, Plug & Play!

märklin

Right out of the box!

Reliability and Innovation a Fun

Designed for Play

Märklin HO Will Grow with You

Don't know where to start? Visit your local Märklin retailer to get started with Märklin 3-rail AC HO! Check out their site for dealers offering special value pricing on HO starter sets.

www.marklin.com

For the dealer nearest you call 800-825-8888

Conducted by Gaylon Vickers

KATO releases SD40-2 in N-scale and HO-scale

The Grand New SD40-2 released recently by KATO is one of the most popular road power available.

Priced at $139.95, the engine features white LED directional headlight, blackened metal wheels, all wheel electrical pickup, KADEE couplers (with dust boot) mounted in metal trucks and operational KADEE coupler. Shells are die-cast weathered. An pack of the following road names: Burlington Northern Santa Fe, Illinois Central, Kansas, Missouri Pacific, Union Pacific. There is also an undecorated model available.

Micrascale introduces part of H2- system

Now company time Micrascale has issued its initial 18 N-scale decals for the Great Transcontinental Railroad. Necessary initially as a part of the Kansas City Southern system, operators a fleet of 100 SD40/SD40-2 diesels throughout Mexico. These decals are numbered and can be for 3 trains and are available for $4.50.

Other new releases from Micrascale include:

N-Trak graffiti package of 180 N-scale decals for $4.50.

Alternate Car Set Boxcar Assortment. American Environmental commemorative 40'6" Evans Plate Boxcars decorations. Pack one road number in a wide variety of prizes including trucks. One set of 180 N-scale decals make $3.25.

Alternate Scale & Engine early color scheme for 1971 set diesel-switcher decals in H-scale at $4.75 and N-scale at $3.00. The set was released earlier in 1977 and features the colorful initial road paint in the 1970s.

Alternate H-Scale single passenger car decals, 1934 in yearly colors, are lettered at Model Load at $4.50 for 180 N-scale and $3.50 for N-scale. Decals for the Railroad Commission company are included in the Santa Fe from the same era set for the many years.

Model Loading and Rail of Colorado decals for 40' boxcars. These were previously a part of an N&W set and are now available to accurate with updated artwork at $2.25 for each letter.

Kadee released three new boxcars

The Milwaukee Invasion significantly to the last release this month from Kadee. The Chicago & North Western boxcar is available at $29.95. It has a yellow lettering scheme, bronze roof sides and end and black ends. They can be equipped with the Stabilizer-X shoes and the Micro-Trains wheel.

Next in a Chicago, St. Paul, Minneapolis & Omaha line car with the logoed. Made of the well Remembered it sides on the sides is for a 'X' Cubed Transitions door, door track, stirrup and double rod it with 12 cast body at $29.95 as a part of the series. A sample is available.

The third offering goes back to the old coupler with a 'W' Pacific & Western car modeling one of 27 built in this series in 1941. The car has features not since seen and cast and is equipped with a 'X' Transitions door and Micro Trains wheel. It is retailing for $27.95.

TRAINCAM

Color video cameras for Model Railroaders

- Miniature color TV camera lets you see what your train sees
- Use standard video camera, monitor or your home TV set (cable hook-up required)
- Plug in for AC or DC or run on batteries
- Color or black & white
- Focuses in front of engine or caboose

$169 a Special...

...plus shipping & handling

DYNATROL

DR-132 DCC WIRELESS Hand Held ... With Real Knobs!

Rock 'em up!

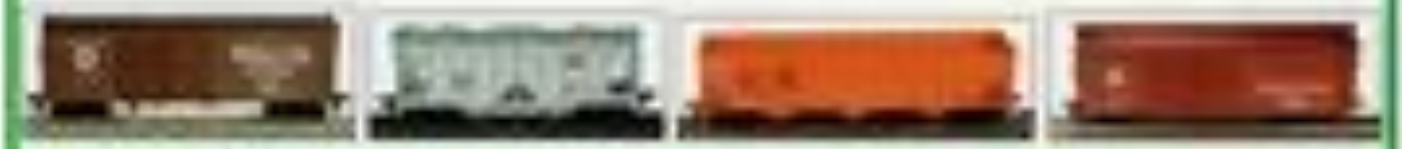
Bowser

See us on the WEB
http://www.bowser-trains.com
PO Box XXX, Mountainville, PA 17554

HO Freight Car Kits

Kit includes: injection-molded plastic body and underframe
Kit completes: ride-glue-assembled metal trucks and wheels with RP-25 flanged or brass wheels
[illegible]'s of roadnumbers available!!!

PRR 40-Ton 4-Bay Hopper	50-Ton 3-Bay Open & Closed Side Covered Hoppers	53' Plate Wall Highway Trailers
PRR 40-Ton 4-Bay Hopper	50' Round Roof Single Door Box Car	53' Smooth Wall Highway Trailers
1937 Era Triple Hopper Car	50' Round Roof Double Door Box Car	N.Y.C. & H. 50' Caboose
40' Round Roof Single Door Box Car	50' Round Roof Double Door Box Car	B & O 50' Stock Car
40' Round Roof Double Door Box Car	Road Rebuilt Flat With Wall	B. & O. 40' Gon-A Car
PRR 40' Gondola	Road Rebuilt Bulkhead Wall	A. & S. "Gable Roof" Box Car
PRR 50' Flat Car	Road Rebuilt Drop Plate	A. & S. End Door Box Car



HO Locomotive Kits

are all-metal with die-cast powerful DC-7 motor, full-swinging valve gear and RP-25 flanged 33 scale-inch drivers, prototype detailing, painting and assembly. No soldering is required. Super-detailed kits require drilling of connecting holes in boilers and headers.

#1402500	V1C E-1 Pacific w/tender
#1402501	USRA Light Pacific w/tender
#1402600	GP ChalMagnet 4-6-2 w/tender
#1402600	USRA Mountain w/tender
#1402650	PRR M-1 4-8-2 w/tender
#1402650	PRR M-1a 4-8-2 w/tender
#1402675	Northern 4-8-4 w/tender
#1402700	PRR K-4 Pacific w/tender
#1402750	PRR K-4 Motive w/tender
#1402800	PRR K-4 Atlantic w/tender
#1402700	PRR T-1 Duplex w/tender
#1402700	USRA 2-10-2 w/tender
#1402800	PRR L-1 Mikado w/tender
#1402810	USRA Light Mikado
#1402900	PRR H-9 w/tender
#1402910	Old Lady Consolidation
#1402000	PRR T-1 Duplex
#1402-000	Crazy Horse 4-8-8 w/tender

N Scale

PRR N-5 Caboose
50' Airslide Covered Hopper
ACF Cylindrical Covered Hopper

READY TO RUN
Plastic injection-molded body and truck

Many roadnumbers available plus many more to be produced!!!

Looking For Good Time?

Model railroading can provide something very precious—quality time together.

Discover the FUN and satisfaction families derive from miniature railroad worlds that are uniquely THEIR OWN.

ROUNDHOUSE – Over 1750 different products for all skill levels, with three different scales to choose from!

G-SCALE · HO-SCALE · N-SCALE
QUALITY READY-TO-RUN · KITS

SETTING THE STANDARD FOR THE NEXT CENTURY

ROUNDHOUSE PRODUCTS Can Be Found At All Of The World's Best Hobby And Model Railroading Retailers Since 1929. Ask For ROUNDHOUSE!

Model Railroading... It's a Great World

For a FREE catalog, send us a long SASE to: Model Die Casting, Inc. Dept. MRR 2000 5410 Edgemont Drive Carson City, NV 89706

http://www.modelroundhouse.com

USA TRAINS

Quality "G" Scale Trains

DPM produces another Gold Kit

Micro-Trains new N-scale releases

Heritage & Living Legends Car Inventory Reduction Sale

We have limited quantities of the following cars available. Please remember only 2 cars per scale per NMRA member.

Heritage Car #3
SOLD OUT

Heritage Car #4
SOLD OUT

Heritage Car #5

Heritage Car #6

Heritage Car #7

Heritage Car #8

Heritage Car #9

Living Legends Car #1

To order:

E-R Model Importers, Ltd.

E-R Models™ LILIPUT HORNBY

Preiser HO KOCH FALLER Wiking Schuco BUSCH FLEISCHMANN Kibri

THOMAS & FRIENDS

HO SCALE

ELECTRIC & WIND-UP TRAIN SETS

NEW FOR 2000!

Working UFO

Preiser HO Scale

ermodels.com

See Your Local Hobby Shop

HMRA SAN JOSE SHOW Booth #163-167 August

POLA arnold Rivarossi ACCURAIL INC. Marklin

prices are $60.95 and $67.95, and box car prices are $79.95 and $77.95.

Atlas releases new 40' wood refrigerator car

Atlas has done turn 54 scale wooden line versatile, a 40' Wood Refrigerator car, an elevated gate brake and a track side display. The refrigerator car is based upon the 40' wood refrigerator cars built by Pullman for the Northern Refrigerator Car Co. in 1936.

The cars model is the first release to have new 3-color printing used inside the Black Box Classics. With its moving car benches, 1:48-scale side sills, underframe and vertical brake shaft, the car was representative of thousands of similar cars that were built during the "Billboard" era of American railroads. Features include: lightweight applied letters, grab irons, stirrups, steel hangers, saddles, brake wheels, vertical brake shaft, coupler lift bars and barrels, opening doors, for cars underframes, wheels designed, all ins. Ornamental style, the cars sprung trucks with sealed wheels, die-cast simulated couplers (truck) and more many detailed cars (truck) to (7).

The 2-rail versions feature fully insulated scale knuckle couplers and solid 33" wheel sets. Two-rail operators will be available per road names, which include: Erie, Santa Fe, Baltimore & Ohio, Northern, Milwaukee, Grand Trunk and Rutland Frisco.

Atlas' O-scale has also released two new versions, an elevated gate brake on and a track side display kit. The kits are based on Atlas' popular 3/8-scale versions and are packaged together for added versatility.

The gate brake has a detailed chip board representation, opening side doors, interior details including a pot-belly stove and dimensions 4" wide by 1.75" long and 1" high. The display has detailed crafts with body material and exterior simulated sheathing, details like a chain, crates and barrels, and a 1.4" wide by 5.25" long and 1.5" high. Prices on each have yet to be announced.

The track side display features detailed crafts with both exterior and interior simulated sheathing and a chain, crates, barrels and some behavior details. It is 2.5" w. x 3.25"L x 3.5" h.

Prices on the items have yet to be announced.

Black Widow bodies Intermountain releases

Intermountain has released many new

GRAND VALLEY

A COMPLETE LIGHTWEIGHT HO SCALE LAYOUT KIT

CITY AND INDUSTRY BUILDING SET

- 13 architecturally realistic building kits
- Over 60 cast detailed accessories
- Over 130 colorful dry transfer decals
- Made for Grand Valley but great for any HO layout
- Instructions and suggested street plan

25 Years

WOODLAND SCENICS

Now available at your favorite hobby store!

ATLAS® GRAND VALLEY™ TRACK PACK

ATLAS

You're On The Right Track....With Atlas®!

products this month is NEW, 'G' and 'O' scales. The 1861 selection includes a Black Widow parlor scheme on the 4-6-0 #114 (photo is card 3-78) seen. The body is painted black with a silver nose and silver and orange rising stripes. The Black Widow also has an illuminated stripe all along the lower side sills and across the side windows. The 4-114 model (no 1861) will sell for $79 while the 4114-DC...

Other NEW selections are:

•Prince Lumen Zone 2 bay hopper kit, assorted sizes, with black lettering at $17.99 each. These cars come with a new-design arched roof running board.

•USRA composite drop bottom gondola 'Lowerville & Southern' kit at $12.49 each. Painted brown and with white lettering, these composite cars have been cut small side panels and ends.

•Kit of reissues of 1919 steam flats 3 bay hoppers, cars marked 'Erie Chicago & Northwestern' and four others marked with Chicago, Burlington & Quincy, each at $17.99.

•Multi-bearing 33" wheel sets, machined and hardened, in a 6-piece pack of six at $19.99.

•5-scale reference gondola a Great Northern 12-panel 40' boxcar with the Glacier Green Logo from 1930. These cars accurately represent GN's boxcars of the late 1940s. They are perfect for the weathered version at $13.99 each.

Other N. American cars:

•Gold Chemical Company 40'8" Type 27 riveted 5,000-gallon tank car kit at $13.99.

•And, 3 heads cylindrical concrete hopper, enough heads assembled, for $17.99. Painted red with white 3 heads hopper, gold and red chevron and distressed cars. This car will be when ordering models and collectors.

•Baltimore & Ohio 1917 3,500 40' assembled boxcar at $39.99.

•Great Eastern 1917 3,500 40' assembled boxcar at $39.99. Painted natural with dark chalk lettering, this car has its black and white heads the border on the left side of the door. There cars carry the advertising slogans, "The Route of the Great Chief" on two sides and "Shop and Travel Great Eastern All the Way" on the other side. They arrive the 1st of...

Also released is an N-scale, fully assembled, Pacific Fruit Express R-40-19 steel-sided ice bunker #997 with the black and white NP heralds and the red, white and blue US flag heralds with gold stripes and Rubber wagons or Wagon wood High Roof trucks and couplers. It retails for $49.95.

The Final announcement release this month is an O-scale kit of an 80'9" type 27 riveted, 8,000 gallon tank car, painted black with the white lettering, "Northern Tank Line." These cars come with laser cut wood retaining brands and retail at $12.99.

Lary Dodd releases smallest decoder

Lary Dodd has announced the release of an HO/N 4-amp, 3-function, 4-motor, DCC conforming, advanced DCC decoder at the price of $19.99. Features include automatic stop and restart, programmable gliding, speed control, improved packet reception for more track operations and more.

APPS™ miniature landscaping
"The Best" for 40 yrs
Used by LUCAS & DISNEY
Custom in 3 grades Harwood Sets
trees finished & unfinished
800-227-2760 cat. $5.00
dealers welcome

B. T. S.

COUNTRYSIDE MODELS
www.countrysidemodels.com

Kato SD40-2 "Snoot"

By: Alan Thickenson

Special Shapes Company

PO Box [illegible] Jonesville, S [illegible] 1-800-[illegible]

www.specialshapes.com

For over 50 years we have been producing and supplying structural shapes of brass for all scales of modelrailroading. Send $2.00 for our NEW full line catalog or visit us at our webpage. The number one source for Special Shapes of Brass.

Come see us at the National Show in Rail-ville, 2000

N Scale Equipment

deluxe is the largest kit in...

deluxe

Transfer Station

Creation Depot

Print in Color
On Your Scale
On Your Printer

Bulletin Board

Membership Thermometer

[illegible]

In Memoriam

[illegible]

George Bellinger, Glen Ellyn, IL
Stephen Wood, Lakewood, CO
Robert Voss, Edmonds, WA
Edward Fischer, Lakewood, CA
Louis Kolupke, Kettering, NE
Samuel Huggler, Harrison, MI
Gerald Rose, Yucaipa, CA
John Mayfield, Richardson, TX
Lou Pio, Fresno, CA
James Scheel, Columbus, OH
Ronald Ross, St. Petersburg, FL
Francis Kolski, Indianapolis, IN
W.A. Eagleshem, South Yorkshire, England
William White, Madison, NE
S. Lacey Thompson, Denver, CO
Bruce Turnbull, Australia, Australia
Frank Wessel, North Pole, Australia

Honor Roll

Life Members

George Murphy, Claremore, OK
Ralph Wallace, Fort Jefferson, KY
Kevin Whitten, River Grove, IL
Richard Bronson, Hingham, NE

Sustaining Members

Harold Hoffman, East Williston, NY
Asociacion Ferromodelistas de Buenos Aires, Buenos Aires, Argentina
Carolina Model Railroad, Jamestown, NC
Longmont Public Library, Longmont, CO
Metropolitan Valley N.R. Club of NY, Morganville, NY
Niagara Valley & Craft Dept. Buffalo, NY
Pacific, Pasadena, CA
Roger's Railroad Junction, Ltd., CA
San Diego Model RR Museum, San Diego, CA
Western Pennsylvania Model Railroad Museum, PA
Mike Longfield, Whatcom Park, IL
Ray Longfield, Whatcom Park, IL
Clarence Andrews, Inc., Denver, CO
South Bay Historical RR Society, Santa Clara, CA

Team 500 Contributors

Steve Barker, Queenstown, Ohio
Hans Bohlens, Tokyo, JPN
Dietrich Kuhlmann, Tillsonburg, ONT
Jim Stein, Tokyo, JPN
James Moffett, South Huntington, NY
William Gonzalez, Maynard, MA
James Nolen, Campbell, MA
Carlos Azevedo, Orchard Dee Omnibus, PQ, Canada
Bud Bailey, Chester, NJ
Ralph Pugsley, Poughkeepsie, NY
Roland Klang, Kelowna, ON, Canada
John Lucia, Blackbridge, ON, Canada
Wayne Marshall, Dundas, ON, Canada
Paul Thomas, Ephrata, ON
Hal Klein, Gladstone, MI
Gary Geller, Gladstone, MI

HO SCALE BRASS

IN STOCK

COMING

COMING

MTS IMPORTS, INC. P.O. BOX 00 MIDDLETOWN, NY, 10940

NMRA Digital Command Control

Quality, Value, Performance and True Compatibility

Digital plus by Lenz

World's smallest decoder. 100% packet reception on our new decoders. 100% of our production decoders have NMRA Conformance Warranty. 3 DCC companies designing for XpressNet – offering the widest choice of throttles, and now announcing RailCOM, our new two-way decoder communication.

XpressNet

We design to the highest level of advanced operation and ease of use!

Lenz Factory of North America
PO Box 442
Cheshire, MA 01225
ph 413-637-0166
fax 413-637-0815

GREAT AMERICAN TRAIN SHOW

For Show Fanatics

- [illegible] dealers of every scale!
- Items on sale from local dealers, [illegible] and collectors!
- Fun operating layouts in many sizes and scales.
- Admission is FREE! Parking is [illegible]
- For more info, including pictures of the show, visit www.gats.com

Participants Wanted

- Rent [illegible] space up to $400.00 for display or operating layout.
- Free selling space available at some shows.
- Please contact us today to receive a free packet of information.

SAINT LOUIS [illegible]

DAYTON [illegible]

SAN MATEO [illegible]

PUEBLO [illegible]

MEMPHIS [illegible]

ALBUQUERQUE [illegible]

SACRAMENTO [illegible]

SPRINGFIELD [illegible]

HOUSTON [illegible]

NASHVILLE [illegible]

[illegible] Discount Coupon Inside! Save $2.00 on admission with this coupon. Limit one coupon per adult. Not valid on [illegible]

NIAGARA [illegible]

SAINT PAUL [illegible]

LEBANON [illegible]

W. PALM BEACH [illegible]

ORLANDO [illegible]

SOMERSET [illegible]

PHOENIX [illegible]

PHILADELPHIA [illegible]

ATLANTA [illegible]

JACKSON [illegible]

INDIANAPOLIS [illegible]

SEATTLE [illegible]

[illegible] Great American Train Show is a fundraiser for the [illegible] organization devoted to encouraging the [illegible] of model railroading. A portion of your ticket purchase will be donated to [illegible]

SAINT LOUIS [illegible]

FORT WORTH [illegible]

PLEASANTON [illegible]

BUFFALO [illegible]

CINCINNATI [illegible]

SAN DIEGO [illegible]

KANSAS CITY [illegible]

DAYTONA BEACH [illegible]

STOCKTON [illegible]

GRAND RAPIDS [illegible]

SPOKANE [illegible]

More Shows Coming in 2001!!

SHOW HOURS: [illegible] Saturday and Sunday

ADMISSION $5.00

Kids under 12 are FREE, admission is good for both days!

GREAT AMERICAN TRAIN SHOW

P.O. Box [illegible] Loveland, [illegible] Phone: [illegible] www.gats.com

CALIFORNIA [illegible]

CHICAGO [illegible]

Pass Exchange

FASO OF THE MONTH

Come Visit
"Nothin Specific"
Booths #624-629!

- Precision Hobby Tools
- Custom Display Cases
- Authorized Dealer
  - Micro Mark
  - Sherline Lathes & Milling Machines
  - Hobby Bits Distributor
    - Carbide
    - HSS Assortments
    - Micro Lux Precision Drill Presses
  - Pin Vises in Various styles

Jim Neilsen, Owner • NMRA Member #665737
632 S. Jefferson Street • Albany, Oregon 97321-2951

www.nothinspecific.com

A SAMPLING OF NEW WALTHERS PRODUCTS FOR 2000

See us at Booths 122-124

set on good quality card stock with round corners. Bob has done a good job on the logo and it is nice to see the scale and model railroad memberships. The back of the pass has some clean and really unique rubber cuts and stripe masking. And Bob has printed his own pass on his small, hand operated press, but he says it is too labor intensive to consider printing passes for others.

—Robert Bolze, MMR
Chm. Pass Exchange

THIS MONTHS PASSES

Rudy Bonham
Bob Boehlke
PO Box 1153, Station A
Saint John, New Brunswick
Canada E2L 4E0

High Wall Railway
John W. Oatman, Owner
P.O. Box 611 Patterson St.
Appomattox, VA 24522

CHANGE OF ADDRESS
Glen Cove Railroad
Edward J. Pupala
3810 Eastwood Pl.
Colorado Springs, CO 80917

CORRECTED PASS
Marvin Kenyon & Wyn Rh Co.
Raymond W. Fisher, President
1108 Kings Circle
Mechanicsburg, PA 17055-7870

Welcome Aboard!

Youth Members

Nathan Bilkins Gainesville, GA
Jon Bohman, Ventura, CA
Chris George, Orchard Park, NY
Andrew Gent, Moraga, CA
Colin Mahanty, Wyndmoor, PA
Ben Mallette, Bonaparte, IA
David Patrick, Kansas City, MO
Trey Taylor, Danville, KY
Dave Wilson, Plymouth, MI
Steven Wraggs, Alamo, Spain

Foreign

Hugh Christensen, Alabaster, AL
Jeremy Kenyon, Tamaqua, PA
Konstantin Kommerell, Bubsheim, Germany
Dirk Thum, Nieuwkerk, DEU
Nobuhiro Fukui, Chuoku, Ogasaki, JPN
Marc Janssen, Brussels, BEL

Northeastern

Dan Foster, Ft. Fairfield, ME
Martin Hulbert, Worcestershire, NY
Richard Lang, Franklin Square, NY
Joseph Nemcosky, Hudson Lake, NY
Marvin Hoffman, East Millstein, NY
James Kleiber, Salem, MA
Peter Sommer, Teaneck, NJ
David Weant, Scarsdale, NY
Toby Lowry, Berlin, CT
Ralph Marchant, Arlington, MA
Ralph Parks, Manchester, NH
Edwin Parks, Manchester, NH
Michael Tracy, Rockingham, MA
Paul Bruce, Derry, ME
Jerry Mcallister, Freeport, NY
Ray Thurber, Newfoundland, NJ
Thomas Mueller, Hackettstown, NJ
Robert Harvey, Melrose, MA
Howard Hoyer, Woodside, NY
Kenneth Dana, Framingham, MA
John Mahoney, Jamaica Plain, MA
Gilbert Bottarini, Burlington, VT
Elias Karagianis, Rosendale, NY
Robert DeRonde, Providenceville, NY
Martin Weinhoff, Woodbine, NY

Niagara Frontier

Robert Douglas, Belleville, ON, Canada
Chris George, Orchard Park, NY
Raymond Kretzschmar, Hamburg, NY
Chris Nies, Mississauga, ON, Canada
Peter Hall, Nanticoke, ON, Canada
John Johnston, Hamilton, ON, Canada
Gary Rice, Westfield, NY
Dan Kavcic, Windsor, ON, Canada

North Central

Harry Hinderliter, Hubbard, IA
Fred Boswell, Canton, MI
David Miller, Swanton, OH
Timothy Bergstrom, Fox Marina, IN
John Meeker, III, Bloomfield, MI
August Dietrich, Lansing, MI
Chad Cox, Westland, MI
Nathan Bilkins, Bainbridge, MI
Thomas Ward, Shelby Township, MI
James Thompson, South Haven, MI

Thousand Lakes

Willard English, Mason City, IA
Steve Ingold, Hermosa, MO

eHobbies club rewards

NMRA members sign up and watch the savings go up!

call us at 1-888-eHobbies
or email ClubRewards@eHobbies.com to register.

Click on [redacted] for big savings on [redacted]

www.eHobbies.com

ask for more info. at our booth #494 & 495

Railfan and Model R.R. Video Superstore

Look for us at the 2000 NMRA San Jose Train Show at Booths 573-577

Our special guest will be Allen Keller of Allen Keller Model Railroad Videos

Featuring videos from the following producers

- **AMR Productions**
- **C. Vance Productions**
- **Conway Video Productions**
- **Close Work Productions, Inc.**
- **Gandy Dancer Productions**
- **Goodheart Productions**
- **Green Frog Videos**
- **Mowry Bell Videos**
- **Highball Productions**
- **Iron Video Productions**
- **JMG Productions**
- **Kalmbach Trains on Location**
- **Mainliners of Iowa**
- **Midwest Video Productions**
- **Pentrex**
- **PILEON Express**
- **Railroy Productions**
- **Craig Bruhl Videos**
- **Skyline Videos**
- **Trackside Modeler**
- **Bentley Bros Videos**
- **WB Video Productions**

800-726-4707
1450 61st Avenue
Greeley, CO 80634-4756
georgef@gandydancer.com
www.gandydancer.com

Kent Richards, Rosevale, MI
Don Ulrich, Minneapolis, MN

Pacific Coast

Mark Kilpatrick, Shawnigan, BC, Canada
Sherrill Hawley, Mt. Angel, OR
Bob Hawley, Mt. Angel, OR
Brian Hart, Auburn, WA
W. Mike Cannon, Island, WA
Donald Hinsong, Williams Lake, BC, Canada
Lloyd Jones, Florence, WA
Preston Kuhl, Woodinville, WA
A. Yokoyama, Renton, WA
Douglas Brigham, Sherwood, OR
Bruce Hamerstrom, East Helena, MT
Dave Audley, Calgary, AB, Canada
Mark Anderson, Longview, WA
William Hostet, Lebanon, OR
Robert Hosch, Mercerville, NJ
Steven Cox, Tacoma, WA
Robert Krack, Gresham, OR

Pacific Coast

Robert Goldman, Sacramento, CA
Lionel Camara, Kailua, HI
Douglas Abbott, Salida, CA
Joanne Dolezal, Arcata, CA
Thomas Washburn, Santa Cruz, CA
Mark Presley, El Dorado, CA
Derek Gingell, San Jose, CA
Mark Wunderlich, El Cerrito, CA
Craig Anderson, San Francisco, CA
John Seifert, Santa Clara, CA
Rudolph Hartmann, San Jose, CA
Clifford Paris, San Bruno, CA
Roberto Lombardi, Berkeley, CA
Scott Mathes, Los Altos, CA
Jay Mize, Montague, CA
Curt Hardy, Santa Clara, CA
Wayne Wiens, Davis, CA
Paul Hsieh, San Mateo, CA
Mark Cramer, Fremont, CA
Chris Rice, San Jose, CA
Joseph Flatley, Greenbrae, CA
Spencer Hall, San Jose, CA
Carol Williams, Escondido, CA
Robert Ray, Fremont, CA
Joseph Dailey, Greenbrae, CA
Robert Robinson, Red Bluff, CA
Donald Wilson, Vallejo, CA
Tom Duckworth, Hayward, CA
Adrienne Duckworth, Hayward, CA
Kevin Scott, Bakersfield, CA
Rod Eckert, San Jose, CA
Gary Hemsley, Anaheim, CA

Rocky Mountain

Ed Overton, Douglas, WY
Richard Watson, Aurora, CO
Mark Grabski, Kansas, CO
John Ruhl, Cedar City, UT
Lee Hemsley, Conway, UT
Ed Wilson, Littleton, CO
John Sweeney, Colorado Springs, CO
Neil Wiley, West Valley, UT
Barbara Hinze, Draper, UT
Dennis Reimer, Fort Collins, CO

Mid West

Rick Yates, Madison, WI
Jon Rutledge, Antioch, IL
Judy Dorsey, Antioch, IL
Daniel Harris, Wisconsin Dells, WI
Daniel Kolman, Forest Grove, IL
Robert Mruzgalski, Madison, WI
Greg Gibson, Indianapolis, IN
Tom Francis, Rockport, IL
Frank Farrell, Wickenburg, AZ
Robert Buehler, Des Plaines, IL
Chris Hotzenbuhler, Wallace, WI
John Beck, Libertyville, IL
Ken Wakeline, Bettendorf, IA
Jay Wojciechowski, Watertown, WI
Mike Pierson, S. Beloit, IL
Peter Kuhn, Stoughton, WI
Family Member Keller, East Troy, WI

Continued on page 89

WE'RE ADDING O-SCALE TO THE LINE!

[illegible]

KATO

- Easy to Use
- Less Set-up Work
- Realistic Appearance
- Nickel-Silver Code 83 Rail
- Everything's Prewired
- Great Value

It must be UNITRACK

#8-000 HO Track Set (shown, $60.00 retail) builds a 4'11" x 8'11" oval layout and can be expanded with the addition of other Straight Track, Curved Track, Bumpers and Electric Turnouts. There is no easier and better looking start to the exciting hobby of model railroading!

For a free brochure of the entire HO UNITRACK product line, please send a large SASE envelope to the address below or visit your local hobby shop.

Your "Operations" may be shut down during the summer, but your "Maintenance Shop" doesn't need to be . . .

HM-5 Motor

#51-5400

Twin fine-pole, double-shaft motor is a true choice for your most maintenance projects. For KATO power packs only. $15.00

Freight Trucks

ASF Ride Control® #0-605 $6.00 pr. 4-pk. box
Barber S-2 Roller Bearing #0-602 $6.00 pr. 4-pk. box

Blackened metal wheels and finely detailed brass axles these trucks your best choice for upgrading your rolling stock. Fit virtually all makes of models.

2002 KATO U.S.A., INC. 10 Kensington Road Schaumburg, IL 60173

www.katousa.com

Friendly Service | Competitive Pricing | Great Selection

Grand Central Ltd.

LIONEL 2000 VOLUME I & 1999 VOLUME II & III

CLASSIC LIONEL

PRODUCT NEWS

LIONEL TRAIN AUCTION

OPEN 24 HOURS LIVE ON THE INTERNET

www.train-station.com

CHECK OUT OUR NEW
ON-LINE SHOPPING

1000 NEW ITEMS LISTED AT LOW, LOW PRICES
ORDER AUTOMATICALLY ON THE WEB

www.train-station.com

SEE OUR NEW CTT
ELECTRONIC LISTINGS

MORE THAN 300 ITEMS HAVE JUST ARRIVED!
POSTWAR, PREWAR, & LTI!

FAX US YOUR WANT LISTS AT 973-[illegible]

www.train-station.com

The Train Station

MOUNTAIN LAKES, NEW JERSEY • SINCE 1974

THE MARLINES WORK TRAIN

Available in "Special" Red & Army O.D. Color Schemes

MARX TRAINS

Hallelujah!

walthers.com

At last!
Our exclusive Product Locator
that tells you where to look for
those limited-run and hard-to-find
items you've been looking for!

Hallelujah!

MILWAUKEE
ROAD

abi

THE TREASURE TROVE
Your Source for Rare and Collectible Trains

THE TRAIN STOP

Williams
Y.O.R.K. Trains
LIONEL

HOBBY
CENTER

OLSEN'S
Toy Train Parts

S&W Parts Supply

[illegible]
[illegible]

PRODUCT NEWS

TOY TRAIN HEAVEN

"Three Rings for Your Trains"

WE WILL PAY GENEROUS FOR TOP QUALITY PRE- and POST-WAR COLLECTIONS

American Flyer · Lionel · MPC/LTI/LLC

TOY TRAIN AUCTION

JUNE 10, 2000 • INDIANAPOLIS

STOUT AUCTIONS

TRAINS

Pat's Trains

www.patstrains.com

toytrainshop.com

THE TOY TRAIN SHOP

Bennett Trains

ELECTRIC TRAINS

513-793-6867

TK Hobby Shop

N • HO • O • G

Williams · LIONEL · WALTHERS

★ WEEKLY INTERNET SPECIALS ★

"BIG BOY"

SHIP IT ON THE FRISCO

Customer-loaded cars differ slightly from picture.

The National Toy Train Museum celebrates its century of "Rolling Along" historic freight cars. The Frisco cars[illegible] cars as reflecting hallmarks or alternates these freight carriers to travel with wherever. They can experience an era of distinctive railroading because the extended rolling stock. Unfortunately, the Frisco like so many other railroads[illegible] names or memories railroading from this era is very scarce. You can remember the Frisco and support The National Toy Train Museum, the educational core of the Toy Collectors Association, when you add this car to your roll[illegible]. As with all the premium cars we have done, it is available in "O" and "S" gauges.

Manufactured by [illegible], these cars have all of the quality features you're used to expect, including metal frames and trucksides, fully detailed underbodies, "O" gauge diecast operating trucks and metal frame "S" gauge trucks. The fully powered car handles with ease on the museum's ongoing modelling scenery. On the year of [illegible], it's the year of the museum's opening, and the production run. **Production of these cars is very limited. Order early to avoid disappointment.**

PLEASE ACT NOW! THESE VERY LIMITED PRODUCTION CARS WON'T LAST LONG, SO GET YOUR ORDER IN TODAY!

[illegible] Please send ____ model of the **Lionel "O" "Ship It On The Frisco" Boxcars** @ [illegible] each. $

Please send ____ model of the **American Flyer "S" "Ship It On The Frisco" Boxcars** @ [illegible] each. $

Shipping and handling: $5.00 for the first car and $1.00 for each additional car. Canadian orders add $[illegible] per car. All other foreign orders add $[illegible] per car. $

[illegible] sales tax in the form of the amount shown and [illegible]. $

Make check or money order payable to **TRAIN COLLECTORS ASSOCIATION** [illegible]. TOTAL $

NAME _____ Date _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Lionel Train Club, a club _____ ZIP _____

Signature _____ Date Order Placed _____

[illegible]

TRAIN EXPRESS

(317) 879-9300 FAX (317) 879-9311
For Placing Orders Only: 1-800-428-6177
4210 W. 96th Street, Indianapolis, In 46268

(317) 879-9300 FAX (317) 879-9311
For Placing Orders Only: 1-800-428-4777
4310 W. 96th Street, Indianapolis, In 46268

Prices subject to change without notice
Supplies limited, all purchases final
1-800
VISIT US AT: www.trainexpress.com

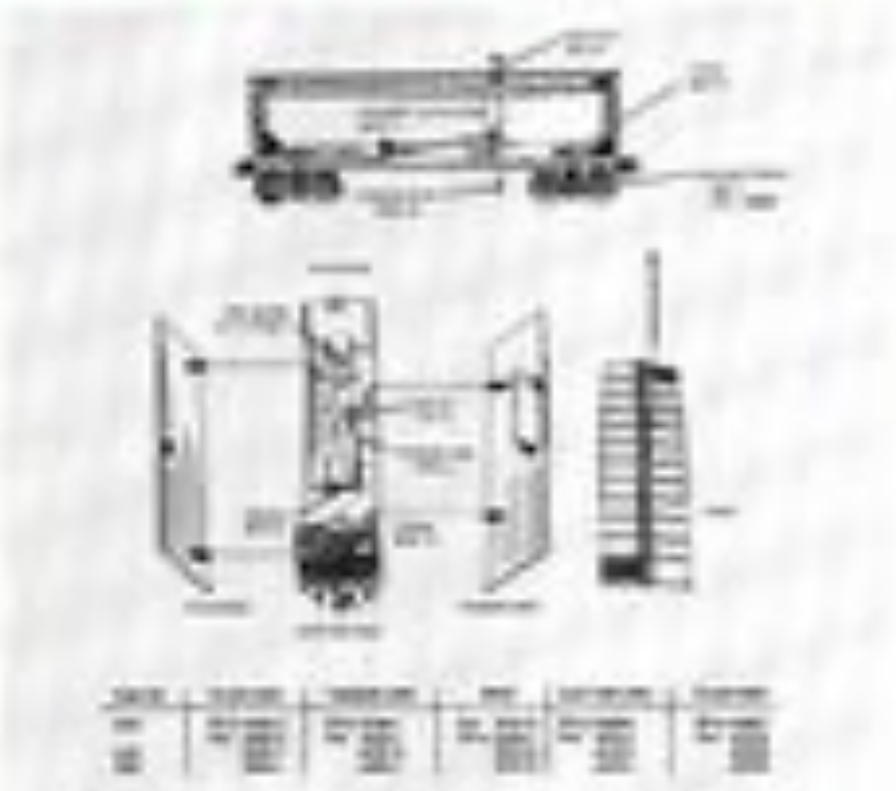
We Also Carry A Full Line of K-Line Brio Large Lionel Ready To Run Sets
INDIANA RESIDENTS MUST INCLUDE 6% SALES TAX. FREE GIFTS ARE LIMITED TO STOCK ON HAND. SHIPPING AND HANDLING ARE NOT INCLUDED IN SALE PRICES. ALL SALES ARE FINAL. ALL RETURNS MUST HAVE PRIOR AUTHORIZATION.
We guarantee that on multiple shipments that items or your order will not be sold out of the time of shipment. For orders that require multiple shipments that are under $50 for shipping charges will be charged $5.00 U.S. Postage is estimate and is subject to change. Please call for current rates.
All prices are subject to change without notice. Check with us for current prices.

TRAIN
ENAMEL
MATCHED COLORS FOR
HO AND N SCALE TRAINS
SEND 10 cts FOR
A COLOR CHART
CHARLES C. WOOD & CO.

SUPERSMOKE

TRAIN SHOW
SUNDAY, JUNE 11, 2000
9:00 A.M.-3 P.M.
Gilbertsville Fire Hall
Rt. 73, (1 mile east of Rt. 100),
Gilbertsville, PA
OVER ONE TABLES OF ANTIQUE
AND MODERN TRAINS AND
TRAIN RELATED COLLECTIBLES
ALL GAUGES, ALL MAKES
IN A LARGE HALL ON TWO FLOORS
Door prizes Show Prizes
ADMISSION $5 (CHILDREN UNDER 12 FREE)
NEXT DATES FOR 2000:
SEPTEMBER 17 & DECEMBER 3
Promoted by Mark Johnson
(215) 857-2972

QUESTIONS & ANSWERS



Exploding boxcar

Recently I got a Lionel ex- mint exploding boxcar. Am I discovered the inside mechanism has been (not it an ex-explain the picture of the car? Then I'll to you or try the parts and get it to working order. – Pedro Alba, Palo Alto, Calif.

Lionel's exploding boxcar—even just the right gift for aspiring rail fans! Lionel and many modelers

For the 1935 or the late 1930 and 1940 years not seen of the most beloved post cars in the collectors and years has also Lionel produced in the 1940, and '50s. The cars were used as prizes for the little plastic missiles from to take a small spinning appearance of the car. Cars were designed as "explode" as expect with a projectile of plastic pot red. Most also an action as the gas and dropped a caller's case was one can to the car will complete and accessible value.

The cars the engineers with broke or jolts worked was the motor of the plastic car rides, which most operated over also in the standard metal car floor. The load bolt there in place. A long trigger pins inside the car, which caused the explosion was activated by other was internally a simple trip spring.

When wound and ready for action, the trigger was was pushed down and backward place by a position about wood engine. The trigger complicated an object that let the wheels of the car be activating the spring-loaded was. The was was long enough to discharge the load and cause the rafter to fall clattering down in a controlled explosion.

For general restoration purposes needed by cars in range as an electronic weight load, we believe you're the service cases could be "overkill." So anything a long time you desire through the road and have our there.

First, hold the trigger in place until the spring is completely compressed.

Then, keep the car inside. It is a cool concept that you and have dropped.

Regarding leaving parts or replacement cleaning recommend. I've not met

THE WESTERN DEPOT

N-Line Superstore #13

[illegible] Phone 630-673-6776 Fax 630-673-6880

E-Mail [illegible] Web Page www.[illegible].com

N-Line

Weaver

Mth Premier

Mth Railking

Mth Premier Lok Only

ALL ITEMS LISTED ARE BRAND NEW IN ORIGINAL PACKAGE AND STOCK

The Process Is Simple
The Results Are
Simply Great
Rail Cleaners
from
Centerline Products, Inc.

Bridge Line
Z Hobbies

Save $5 on 3-5 Rail Locos

Perry's Hobbies

Questions & Answers

Lightweight pulling heavyweights

Troubleshooting the crane

It's not the heat ...

TRAINTRACKER™ AUCTIONS

point . click . post

Our software generates product descriptions.
Eliminate guess work with our
Advanced Search feature in the

ALL NEW

TRAINTRACKER DELUXE™

$74.95

Greenberg's® Price Guides built right in,
with description, color, built year, and more...

800-569-7333

or Order Online

bangzoom.com

For the Serious Collector

OTT MACHINE SERVICES

Has the sounds you want for all of your Steam and Diesel locomotives. Ride the rails with OMS! Call, fax, write, e-mail, or visit our web site and see why OMS is the best choice for sound.

Phone: (630) 889-8530
Phone: (630) 964-0567
Fax: (630) 719-5174
Email: ottmachsound@juno.com
Web: http://www.ottmachsound.com

OH Machine Services, Inc.
114 E. Ash St.
P.O. Box 1151
Lombard, IL 60148-8151

America's Best Train & Hobby Shoppe Inc.
136 E. Army Trail Rd. Glendale Ht. IL 60139

PH: 630-539-8851
Spring Cleaning Sale!

Visit us online at www.americasbesttrain.com

LIONEL TRAINS

QUESTIONS & ANSWERS

[illegible]

Free ride!

I have a pre-1987 Fleer Bobby Hatch mobile. The spring was either wound too tightly or unwound in the wrong direction, now it won't work. Could you suggest a reliable repair station in Kentucky or in a state close by? — *Howard F. Bolin, Campbellsville, KY*

[illegible]

Spare parts, please!

[illegible]

Charles Siegel's

Train City

I want to buy $500,000.00 worth of trains this year!

3133 Zuck Road Erie, PA 16506
Phone: (814) 833-8315 Fax: (814) 838-3337

Buying and Selling Lionel - American Flyer - Marx - Others

Find many more items at
http://www.traincity.com
Or request our price list

Dealers - Free Auctions At
choochooauctions.com
The newest on-line train auction site!

We have purchased some huge collections recently. Only a portion appears in this ad.

Please call us or visit http://www.traincity.com for more information

OLD TOY TRAINS
POSTWAR & NEW & OLD

LIONEL, AMERICAN FLYER,
MTH, WILLIAMS, K-LINE,
MARX, GILTWOOD & MORE

GIANT INVENTORY SALE!
WE HAVE YOU CALLS!
PHONE OR FAX: 941-756-4594

THE OLD TOY TRAIN HEADING CO.
[illegible]
Mike Orr & Rose - Sale
email: oldtoytrains.com

SUNSHINE TRAIN MART
OUR 10TH YEAR
www.sunshinetrainmart.com
3880 Austin Bluffs Pkwy #130
Colorado Springs, CO 80918

MTH

[illegible]

LIONEL

[illegible]

Mon-Sat from 10AM to 6PM (Eastern time)
Minimum shipping $9.95 (no CODs)
Visa, MC, DISC, Amex, Cash, Check
Phone 719-598-8811 - fax 719-598-8799

GLEN'S TRAIN SHOP
[illegible]
PHONE [illegible]

COLLECTIBLE TRAINS & TOYS

MIZELL TRAINS, INC.

GarGraves

1-800-541-7019

Steam Era Classics™

ATLAS O's NEW 40' Wood Refrigerator Car

Based upon the 40' wood refrigerator cars built by Pullman for the Northern Refrigerator Car Co. in 1930, this model is the first release in Atlas O's new rolling stock series, Steam Era Classics™.

With its roofwalk, ice hatches, 2/2/2-style 3-rib body and vertical brake shaft, this highly detailed car is representative of thousands of similar cars that were built during the "Billboard" era of American railroads.

Two road numbers will be available per road name, featuring absolutely amazing painting and lettering. These cars are sure to be a centerpiece of your layout or collection.

(Photo detail depicts side door, door open and door.)

Features Include:

- Highly detailed 40' body
- Separately applied ladders, grab irons and stirrups
- Separately applied door hinges, handles and latches
- Opening doors
- Separately applied operating roof hatches, hinges and latches
- Die cast underframe
- Separately applied brake system, vertical brake shaft and angled lift arm
- Body designed to accept separately applied end details
- Die cast articulated couplers (2 each)
- Minimum diameter curves (2 each) 31.2"

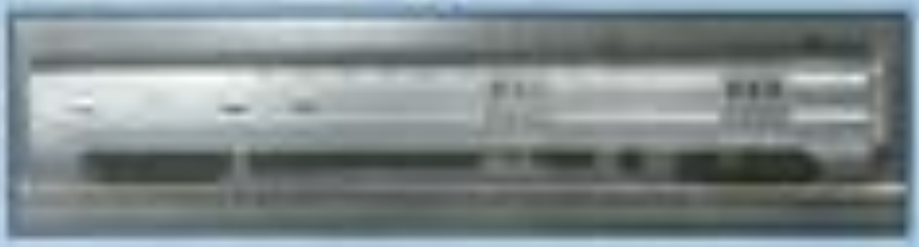
(Roof hatch and hatches open and door open as the model ships!)

1 roof versions feature body-mounted cast-on/roll-in couplers and scale 33" wheelsets

2-RAIL (ITEM #)	ROAD NAME	3-RAIL (ITEM #)	
6700	Undecorated	7700	
6701	[illegible]	7701	
6702	[illegible]	7702	
6703	[illegible]	7703	Limited Edition
6704	[illegible]	7704	Limited Edition
6705	[illegible]	7705	Limited Edition
6706	[illegible]	7706	Limited Edition
6707	[illegible]	7707	Limited Edition

Atlas O, LLC
[illegible]
[illegible]
www.atlasrr.com

What's New
NEW HO FOR JULY



RAILROAD PROTOTYPE MODELERS & 1/87 *SCALE* VEHICLE MODELERS 2000 WEST COAST MODEL FEST

By Brian T. Nicholson

The RPM and 1/87 vehicle groups held a joint get-together in Los Angeles. Here are some of the models that were on display. For more information on the 1/87 Vehicle & Equipment Club, visit their website at http://www.1-87vehicles.org. For more information on the Railroad Prototype Modelers, visit their website at http://www.rpmrr.org. There's an index of previous articles on vehicle modeling on page 89.

The two conventions moved to Anaheim, California, and brought with it another opportunity for modelers to display their efforts. The complete West Coast Model Fest was held on January 22 at the Anaheim Train Depot in the Los Angeles suburb of Orange. Model Railroader photographer Jim Forbes and Kalmbach Hobby Store manager Gary Kaufmann organized a Railroad Prototype Modelers (RPM) West and a west coast meet for the 1/87 Vehicle and Equipment Club, and by co-incidence there was room for both the large and small of these model train clubs which is already a successful joined event.

Although the event was very successful, both in terms of attendance and model display, missing from some of the rooms created a disconcerting crowding and claustrophobic effect and it seemed as if everyone was trying to get through the doorways at the same time. The modelers' rooms were set up with the RPM meet and the 1/87 Club meet being held in separate rooms with a short corridor dividing the rooms. The Anaheim convention is a meeting place for the largest users of Kenworth trucks, and Mack Brotherhood gave a show on commercial trucks (see page 10).

Manufacturers with displays included K-Line, Classic Metal Works, Atlantic Rail, Trout River Line, Intermountain Railway Models, Lokomat Miniatures, Proto-Iron, and Scale Craft Instruments. The Union Pacific Historical Society and the Western Pacific Railroad Historical Society had displays for some attendees. There were a number of suppliers with representatives covering the room, including Model Workshop, Dave's Hobbies, and Kalmbach Hobby.

The Scale Craft Instruments 1/87 scale model of a Kenworth W900 dump truck. Dan Kuhn's realistic pulley system moves headlights, mirrors, wheel guards, mud flaps, and hood scallops. The dirty effects for the exterior and wheels are acrylic paint.

ELECTRO-MOTIVE DIVISION (EMD) GP40-2 AS CONRAIL 3280 & 3295

Photos from the collection of Louis A. Marx

The parts used and decals you'll need to duplicate this 4-axle diesel in miniature

Even when Electro-Motive Division built 2,000 GP40-2 diesels for World Railroads between January 1972 and November 1986, EMD's plan to build the last of the line. The previous GP40 was a hot 3,000 units, at the time of sales for 3,000 horsepower diesels was waning. Only 90 GP40-2s were built by EMD. The railroads had switched with fancy GP40s dropping out the railroads were already armed with the new models on the street. The GP40-2 has evolved to the same carbody as the GP38, with fans applied over 46 inch cooling fans on the rear top of the long hood. The carbodies on both locomotives complement. On the chassis, having put a few feet of hood engines positions apart. The GP40-2 can be identified by the small oval window on the right rear side of the long hood. Most GP40-2s also have the 4 inch long radiator grilles on the sides.

Conrail 3280 and 3295 were part of another series, GP40-2(W) built in 1977.

Although the 2,000 were made of the GP40-2, it would not be possible to order the new locomotive from the factory. Railroads ordered the locomotives, EMD's diesel locomotive model, and then shipped the fully GP40 with the long hood to a local dealer's.

SCALE MODEL GP40-2s

HO Scale: Athearn

N Scale: Life-Like, Con-Cor, Kato, Atlas, Model Power, Bachmann, Athearn

O Scale: Lionel, MTH

G Scale: LGB

HINT

Hand Rail Bars: Bright Colored, Fully Scale w/ Grab Handles (19 Available) 8 Sets, Model Power No. 29, Walthers 949-1, or Precise Line 512

DECALS

HO Scale: Microscale 87-137 Chessie Units or Walthers 932-1656

N Scale: Microscale 60-137 Chessie Units 932-1656 or Walthers 932-24

O Scale: Microscale 10-85, Chessie Line, or Walthers 932-1656

One Detail At A Time (HO Scale)

Now for the connection, we have to install pairs of short detail parts opposite to the long GP40 hose on "The Detail." The short is also available in two sizes, 2236SN1 & 2236SN2 (2236 SN1 & 2236 SN2)

EMD GP40-2 AS CONRAIL 3280 AND 3295

Kadee Quality Products Co., 673 Exchange St., Rochester, NY 14608

Kalmbach Publishing Co., 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187-1612

Kato USA, Inc., 100 Remington Blvd., Ste. 101, Mount Prospect, IL 60056

Kemtron, Inc., P.O. Box 1410, Mansfield, OH 44901

Kesselring Enterprises, 1 Kesselring Dr., Monroe, NY 10950

Kevin's Trains, 1 Kevin's Dr., Ashland, MA 01721

Kibri, Postfach 1220, D-56366 Neuhaus, Germany

Kimberly Clark Corp., 401 N. Lake St., Neenah, WI 54956

Kinderbahn, Postfach 1220, D-56366 Neuhaus, Germany

Kitmaster, Postfach 1220, D-56366 Neuhaus, Germany

Kleinbahn, Postfach 1220, D-56366 Neuhaus, Germany

Kohs, 1 Kohs Rd., Wilmington, DE 19810

Kokomo Locomotive Works, P.O. Box 2, Pottstown, NJ 19464

Kozmo Models, Inc., 2600 W. Bullard Ave., Fresno, CA 93705

Kraftmaster Models, 1 Kraftmaster Dr., Fairfield, CT 06430

Kromer Kustom, 1961 Highway 90 North, Hammondville, NY 29870

Kuehnrich Studio, 1 Kuehnrich Dr., Kuehnrich, KY 41857

Kuhn Naef, Postfach 1220, D-56366 Neuhaus, Germany

Kumata, Postfach 1220, D-56366 Neuhaus, Germany

Kusan, 1 Kusan Dr., Kusan, KY 41857

Kyowa, Postfach 1220, D-56366 Neuhaus, Germany

Lambert Locomotive Works, P.O. Box 2, Pottstown, NJ 19464

Lamy, Postfach 1220, D-56366 Neuhaus, Germany

Lance Mindheim, 1 Lance Dr., Mindheim, NY 12345

Lanier Road Models, 1 Lanier Rd., Lanier, GA 30549

Lehigh Valley Railroad Museum, 1 Lehigh Valley Dr., Allentown, PA 18103

Lenz, Postfach 1220, D-56366 Neuhaus, Germany

Liliput, Postfach 1220, D-56366 Neuhaus, Germany

Lionel Trains, Inc., 50625 Richard W. Blvd., Chesterfield, MI 48051

Lionel, LLC, 50625 Richard W. Blvd., Chesterfield, MI 48051

Locomotive Workshop, 1 Locomotive Workshop, Locomotive, PA 19810

Lone Star Locomotive Works, 1 Lone Star Dr., Lone Star, TX 75668

Lone Star Models, 1 Lone Star Dr., Lone Star, TX 75668

Lone Star Railroad Museum, 1 Lone Star Dr., Lone Star, TX 75668

Lotus Models, 1 Lotus Dr., Lotus, FL 33159

Lowell Locomotive Works, 1 Lowell Dr., Lowell, MA 01851

Lucky Line, 1 Lucky Line Dr., Lucky Line, KY 41857

Lyon Locomotive Works, 1 Lyon Dr., Lyon, PA 19810

Lyon Models, 1 Lyon Dr., Lyon, PA 19810

Lyon Railroad Museum, 1 Lyon Dr., Lyon, PA 19810

Maine Central Railroad Museum, 1 Maine Central Dr., Portland, ME 04101

Maine Locomotive Works, 1 Maine Dr., Portland, ME 04101

Maine Models, 1 Maine Dr., Portland, ME 04101

Maine Railroad Museum, 1 Maine Dr., Portland, ME 04101

Malibu Models, 1 Malibu Dr., Malibu, CA 90265

Malibu Railroad Museum, 1 Malibu Dr., Malibu, CA 90265

Malibu Trains, 1 Malibu Dr., Malibu, CA 90265

Mantua, Postfach 1220, D-56366 Neuhaus, Germany

Marklin, Postfach 1220, D-56366 Neuhaus, Germany

Marx Trains, 1 Marx Dr., Marx, KY 41857

Mattel, 1 Mattel Dr., Mattel, CA 90265

Maxi-Toys, 1 Maxi-Toys Dr., Maxi-Toys, KY 41857

Mehano, Postfach 1220, D-56366 Neuhaus, Germany

Menards, 1 Menards Dr., Menards, WI 54751

Menomonee Falls Railroad Museum, 1 Menomonee Falls Dr., Menomonee Falls, WI 53051

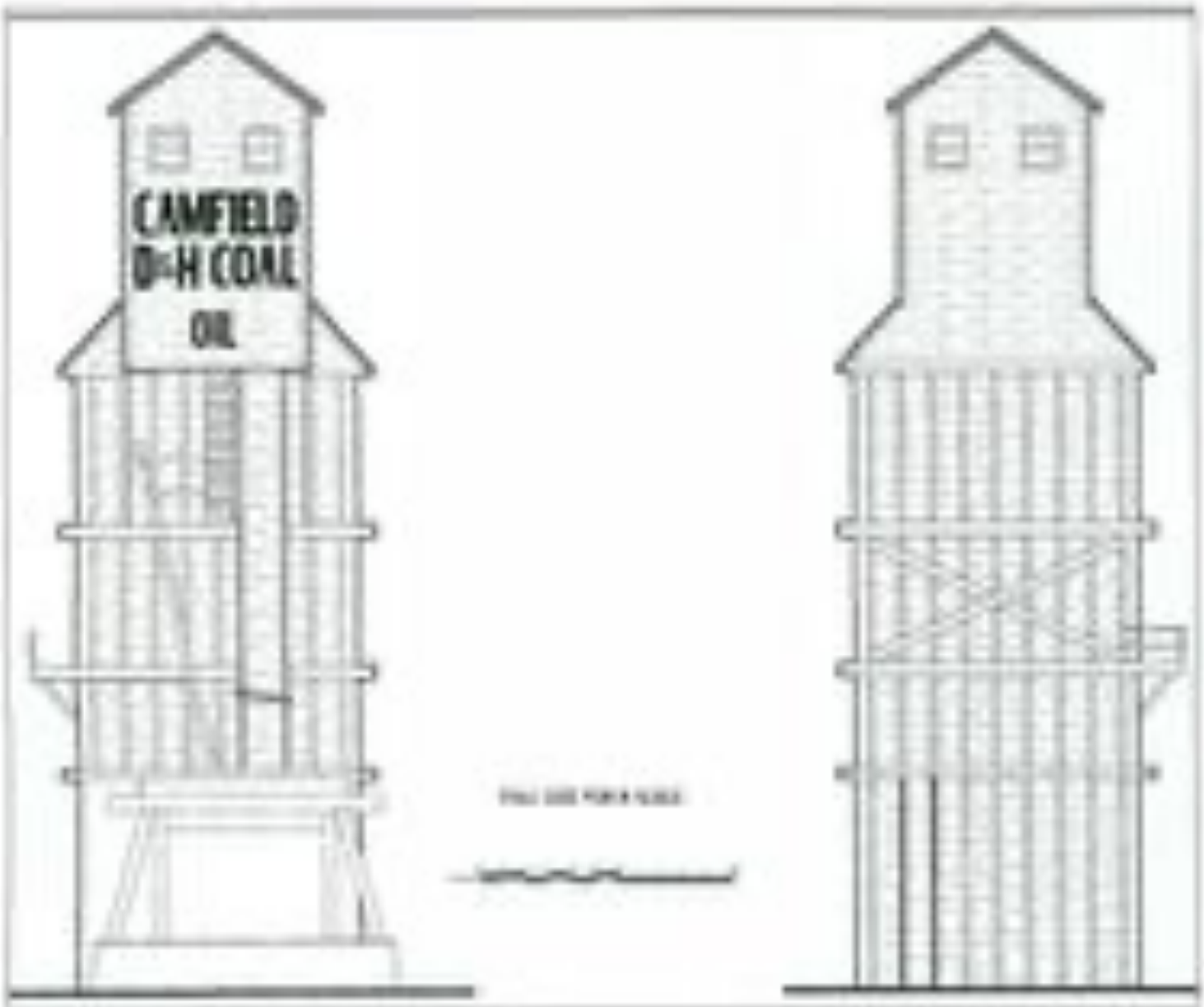
**Menomonee Falls Trains

MODEL J. E. CAMFIELD COAL

Plans by David Frisco

Photos from the John Nehrich collection

These plans are part of a continuing series on "The Industrial" for those who run narrow-gauge industries. J. E. Camfield Coal/Oil was, apparently, supplied with coal mined along the Delaware and Hudson Railroad. The Model was not a siding adjacent to the DRR mainline at Mechanicville, New York. To model this structure, photocopy the plans to reduce or enlarge them to match your scale. Use the photocopies, as described in the April and June 1998 issues, to build the sidewalls from styrene sheets and strips or models. Use techniques in use at the Glass Café at Campbell's Corporate Mix. The Campbell number 346 HO scale "Quick 'n Cool" could be modified to produce a reasonable similar model. Two or three of the Glass Café HO scale 9001 or N scale 2001 Cooling Towers could be kit-converted into a replica of J. E. Camfield Coal.



PREVIOUS ARTICLES ON SCRATCHBUILDING

Cleaning kit parts from larger or smaller scales (but see my own scales) with a photocopy machine. (1989)

Drilling pre-sized holes. November (1989)

Soldering techniques (for removing or any other work on white metal castings). November (1989) and November (1990)

Resin casting to take master work economically (techniques by Ian Wakefield) (January 1990)

Building structures with balsa wood (Jan) (1990)

"Snap-fit" construction in clear styrene plastic (Jul) (1990)

"Snap-Cut" construction with styrene brick, tiles or shingle sheet. (December (1990)

Building the Eric Nye York source in brick sheet plastic and styrene. (January 1991)

How to reduce or enlarge any plan to any scale with a photocopy machine. (March (1991)

Compressing perspective projection to (a smaller viewer). (September (1991)

Scratchbuilding a Penney class 10-10 Steel Coal Car in 1/87 scale. (September (1991)

Building a radial-sided truck side frame. (November (1991)

Tracing plans directly onto styrene sheet using a fluorescent light, pencil, ruler and bottle knife. (December (1991)

All Polished glass windows and other scratchbuilt from styrene. (January (1992)

Using photocopy machine to reduce or enlarge plans to any scale. (March (1992)

Scratchbuilding the Thompson WV conveyor car for the C&O in HO scale from styrene plastic. (March (1992)

Scratchbuilding the well known near Minot, North Dakota using styrene strips, with photo and prototype photos. (September (1992)

Scratchbuilding a giant Mulhern (Denver, Colorado) grain elevator from styrene in N scale. (November (1992)

Scratchbuilding the brick "Cumberland Laundry," with construction tutorial diagrams and model photos. (December (1992)

Scratchbuilding the Grand Trunk Cemetery with model photos and plans, (Jan (1993) (resin plans and prototype photos (March (1993).

Scratchbuilding brick and stone entrances to rooms, using with special tips, methods at Knollwood Quarry. (August, September and November (1993)

Scratchbuilding with Plasticville window walls and windows. (April (1993) and (December (1993)

Scratchbuild a coal crusher crown from styrene strip and sheet. (February (1994)

Scratchbuild a steel coal mill from Pike Craft parts. (August (1994)

Scratchbuild Pittsburgh, Shawmut, (Illinois) an orange warehouse. (November (1994)

Scratchbuild HO scale concrete plant and plans for the Northwestern Portland Cement Co. plant. (February (1995)

Scratchbuild 1/8" Bulk masonry shell (concentric cone) with prototype and model plans and photographs. (March (1995)

Scratchbuild Appalachian coal mine (the Magnetic Colliery) (resin plans in the January 1994 issue). (May (1995)

Modeling a 1/87-scale coal-fired yard floodlight tower in brass. (November (1995)

How to build modern wood-sided grain elevators from PVC pipe in HO scale. (March (1996)

How to build resident wood-sided grain elevators from PVC pipe in N scale. (March (1996)

The "Scribe 'N Snap" technique for building in sheet styrene. Part I using photocopy machines for conversion plans and back lighting to trace the plans directly to the styrene. (April (1996)

The "Scribe 'N Snap" technique, part II, mapping the windows and door openings and assembling the walls and roof. (May (1996)

The "Scribe 'N Snap" technique, part III, plus methods of cutting styrene quickly and accurately, quick-clip over-and adhesive from styrene strip, using rotating motorized "mouth" for making blanks, bending foundations and roof supports from plastic "scale lumber" and making custom signs from dry transfers and artwork masking. (June (1996)

Building a kate car extending coal pipe—an "industry" in a square inch of layout space. (May (1997)

Build a truck warehouse in cardboard, Crackerbarrel & Wood, from plans, patterns in card-stock modules, by Lee Wilson. (February (1998)

Modeling Modern van-unloading machines in styrene, by Lorenzo Hernandez, (July (1998)

PREVIOUS ARTICLES ON MODELING THE MINING INDUSTRY

Plans and prototype photos for the coal tipple at Point Creek, West Virginia, with photos of the HO scale model. November (1989)

Plans and prototype photos for the coal dealer and silos at Syracuse, New York. (February (1990)

Plans and prototype photos for the coal dealer and silos at Kirkland, New York, (March (1990)

Plans and prototype photos for the North Branch Coal Company on the Rensselaer and Lake Erie Railroad. (January (1991)

Plans and N scale model plans for a miniature-scale version of the North Branch Coal Company, by Robert Hitchins. (January (1991)

Plans and prototype photos for the Consolidation Coal Co tipple at Jenkins, Kentucky on the Chesapeake and Ohio Railroad. (March (1991)

Plans and prototype photos for the Majestic Coal Company tipple at Majestic, Kentucky on the Norfolk and Western Railway. (January 1994 with more information in April 1994)

Plans and prototype photos for the Hayden Coal Company coal mine on the D&RGW mainline near Hayden, Colorado, April 1997.

Plans and prototype photos for the Manchester, Vermont craft dealer's store on the Railroad Boulevard layout, 1998.

INDUSTRY PLANS IN PREVIOUS ISSUES

Coal Tipple, at Point Creek, West Virginia prototype photo and other coal related photos, November 1989.

Coal Dealer and Silos, at Saratoga, New York, prototype plans and photos, February 1990.

Coal Dealer and Silos, Baltimore, Ohio, New York, plans and prototype photos, March 1992.

Sand Processing Plant, at Oakley, Illinois, prototype photos and plans of the building also can still be seen and visited, November 1989.

Creamery and Grain Elevator, at Lincoln, MA, Sanborn, the second creamery at Grand Ave, built of fire brick, December 1989 and September 1990.

Creamery, at Grand Isle, Vermont, the original wood building, March 1991.

Creamery, at New Jerusalem, Missouri, the H.P. Hood Creamery, complex plans and prototype photos, March 1990.

Brick and Tile Kilns, Fremont, New Castle, April 1995.

Sugar Beat Loader, Great Western, Sugar, August 1997.

Sugar Beat Flumes, Utah & Idaho Sugar, August 1997.

Brick Factory, Wilkerson & Sons Brick Works, October 1995.

Grain Elevators and Silos, W.J. Pittsfield Co., January 1992.

New England Mill, Bare Cotton Mill in Lowell, Massachusetts, July 1992.

Reminisce Freight House, Baltimore, Maryland's, Operations, Smart freight house on the Baltimore &

Ohio Railroad in 1930, Photo, October 1992.

Lackawaxen Trestles, Bridges, at Ballstown's Falls Point District on the Baltimore & Ohio Railroad, November 1992.

Coal Tipple, South Bolin Coal Co. on the Baltimore & Lake Erie Railroad, January 1993.

Coal Tipple, extensively restored, North Shelby Coal Co. Tipple as modeled in N scale by Robert Hayden, January 1993.

Grocery Stores, near Grand Rapids, Michigan, July 1993.

Livestock Pavilion, at Glen Falls, New York, prototype plans and photos, May 1993 and May 1994.

Coal Tipple, the Consolidated Coal Co. tipple at Jenkins, Kentucky on the C&O Railroad, March 1995.

Brick Mill Building, the Enterprise Cotton Mill at Saginaw, Operation, August 1993.

Coal Tipple, Majestic Coal Co. at Majestic, Kentucky, on the N&W Railroad, January 1994 and more information in April 1994.

Coal cover transfer crane on the C&O, prototype and model photos and plans, February 1995.

Truck Repair Terminal (garage) on the CP Rail system, May 1994.

Grain elevator and warehouse at Mooreesville, N.C., with model and prototype photos, June 1994.

New England-style brick mill, an Abbey Manufacturing Complex, Scharon, Georgia, plans and prototype photos, September 1994.

Grain Mills and depot, model and prototype plans and photos, December 1994.

Cheese manufacturing plant, Northwestern Portland Cheese Co., prototype photos and plans, February 1995.

Cheese Mold, the Love Star Portland Cheese Plant in Tomes, Utah, California, May 1995.

Oil Depot, Standard Oil Company at Waterford, Pennsylvania, April 1996.

Oil Dealer Depot, Texaco Fleet, Edmonton, Just one in Crossroads, British Columbia's plans and prototype photos, August 1996.

Oil Dealer Depot at Phoenix, Arizona, Prototype plans and photos, October 1996.

Hayden Coal Company tipple plans and prototype photos, April 1997.

Oil complex for bulk car unloading at oil depots or pipelines, plans and prototype photos, and step by step construction, May 1997.

Dry bulk fertilizer plant, for Pennzoil facility at Devils Lake, North Dakota, prototype photo, photo cast N scale model, July 1997.

Devils Lake, North Dakota Grain Elevator plans, model and prototype photos, by Chet Mullarney, August 1997.

Manchester, Vermont craft dealer and dealer plans and prototype photos, March 1998.

Dalton Creamery at Utica, Maine, plans and prototype photos, April 1998.

Model the three Colorado model prototype, model and prototype photos, by Lawrence Simonsen, July 1998.

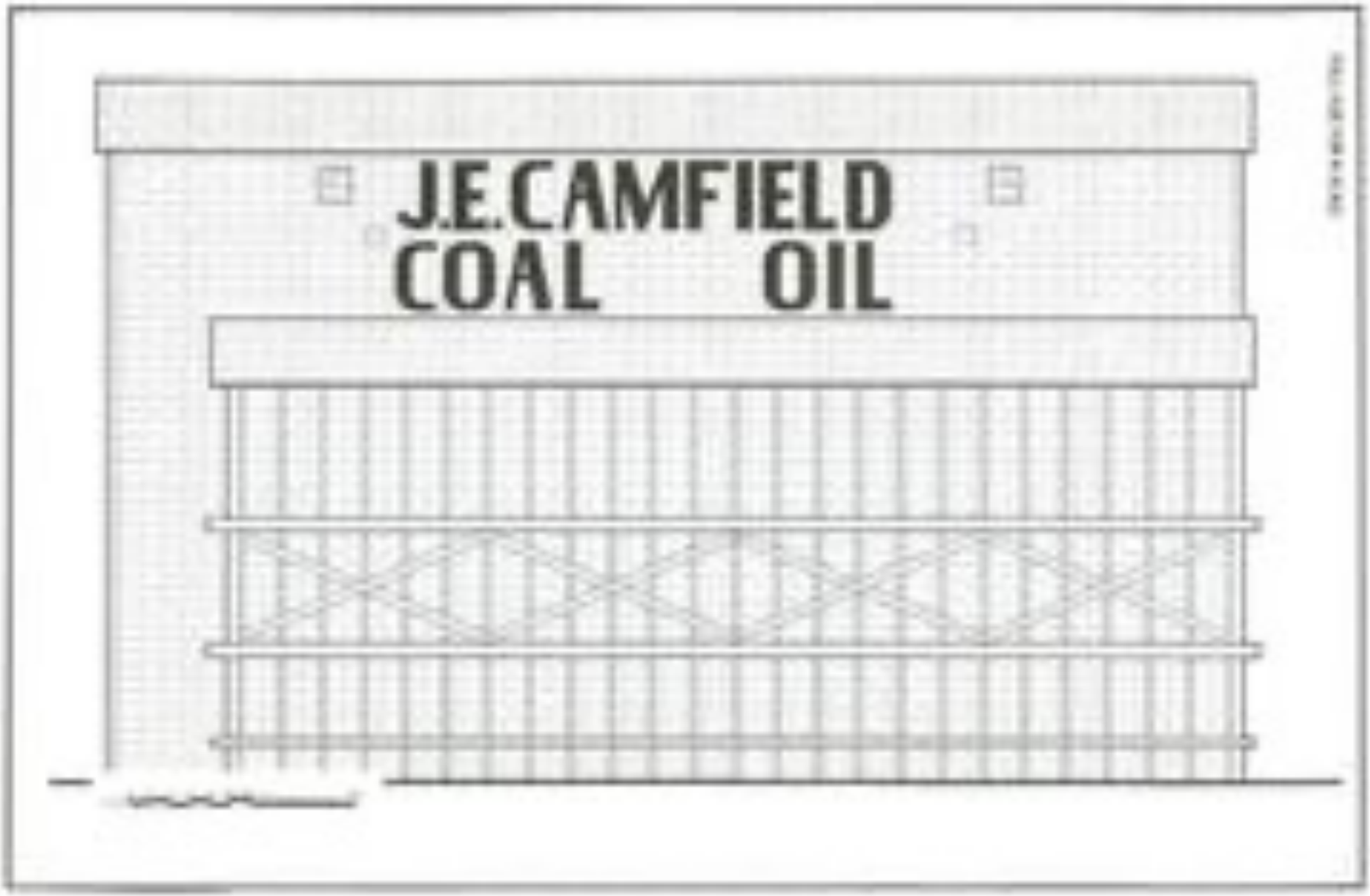
Nelson Creamery at Richmond, Maine, plans and prototype photos, September 1998.

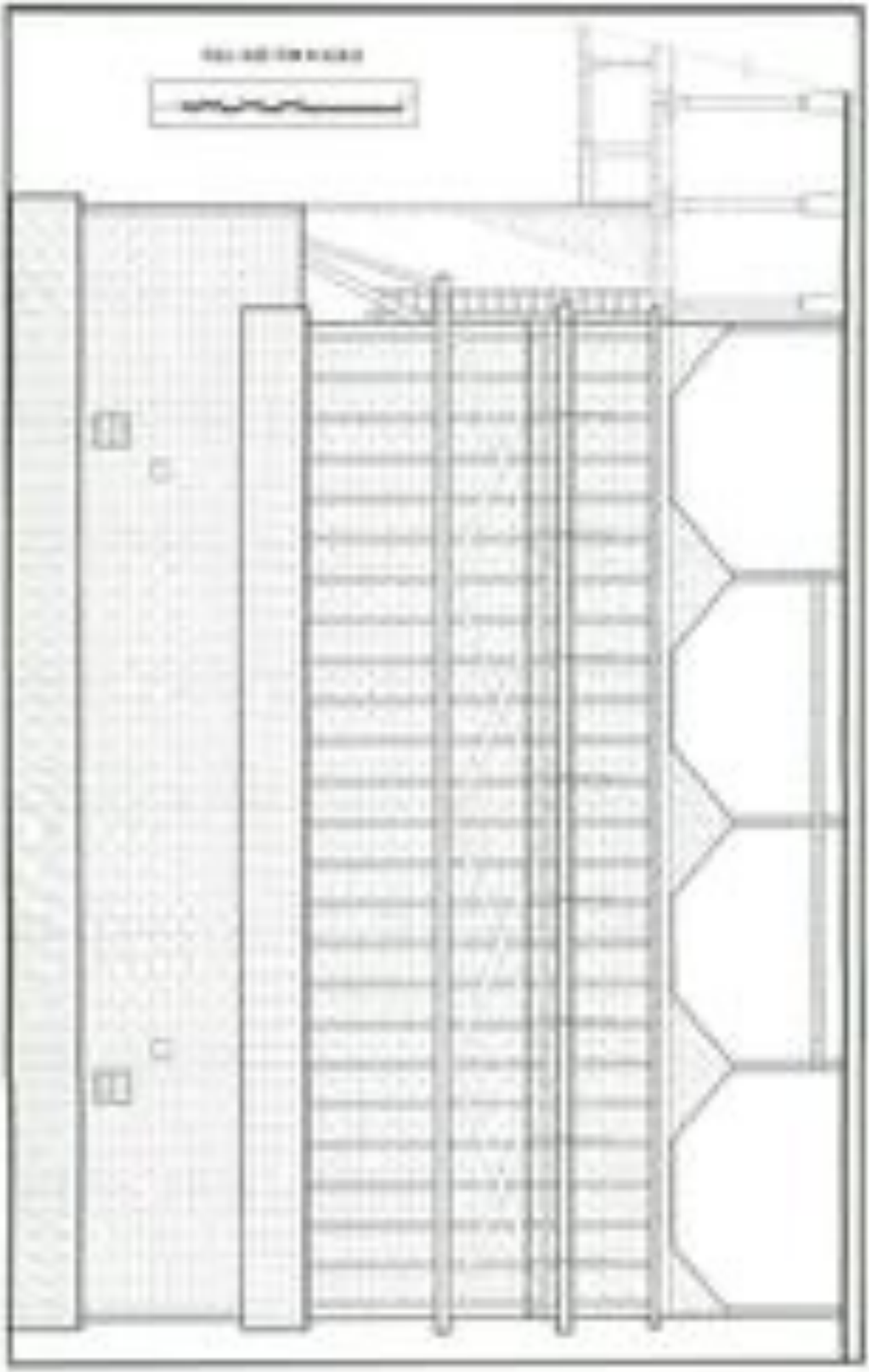
Nuova Nova Fertilizer plant with prototype photos and plans and HO scale model photos and techniques, by John Swanson, December 1998.

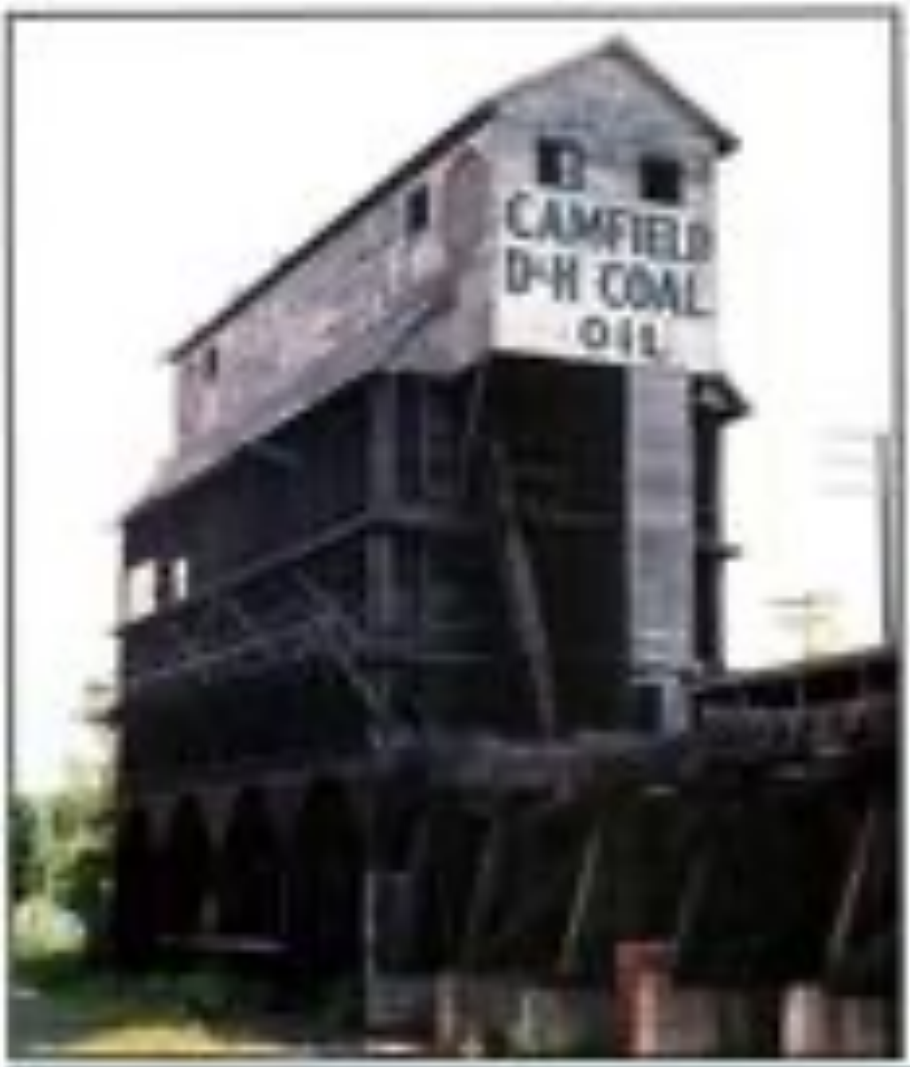
Mount River Asbestos Co. N scale plans, HO scale model and prototype photographs, by John Swanson, February 1999.

Plans and prototype photos for the Manchester, Vermont craft dealer's store on the Railroad Boulevard, March 1998.

END


J.E.CAMFIELD
COAL OIL




CAMFIELD
D-H COAL
011

MODELING THE SOUTHERN PACIFIC, CIRCA 1945, IN S SCALE

By Jim Sweeney
Photos by Robert Schleicher

Jim Sweeney is modeling the Southern Pacific's Coast Line from Oakland, California to Reno, Nevada on three decks in his 51 x 30 layout room and 14 x 24 garage. You can visit Jim's layout as part of the layout tours at the 2009 National Model Railroad Association convention in San Jose, California, July 29–August 2.

PHOTO 1: The Coco bridges are just visible in the far left on the upper level, with the mainline roadbed on the lower level to the right.

PHOTO 2: A pair of Southwest Models 2-8-2 Mikes depart Sandusillo with a heavy freight during the Coco bridge on the upper level.

Railroad Route Upper Level
High Sierras in Sparks, Nev.
SOUTHERN PACIFIC IN S SCALE

PHOTO 4: The finished freight yard, on the lower level of the 12 x 24 layout room, with the ready-to-lease in the background.

PHOTO 5: The roundhouse as finished (a scratchbuilt Kato Alco locomotive waiting service) using cast-resin. The kit is a cost-conscious model as a North West "short-cuts" shanty.

PHOTO 6: A heavy northbound freight rolls past the signal mast from the upstage area.

UPGRADING N SCALE MODELS

(Article appears on pages 80-81 of this issue.)

Part 1 of 4) tells us upgrading the Atlas on Backmonte 9% 2 does the essential happen. Add, Fleet and strike and more economic couplers base (1994).

Part 2) on upgrading Atlas card more rebel headers gets city happen with N Scale of Nevada body wheels coupler gaskets Remember (1992).

Part 3) on upgrading Atlas box cars with Made cranksafe, Micro-Trains wires, brake wheels, wheelsets and body-mount couplers, plus Kadee-no power shelf weathering, Kalmbach (1994).

Part 4) on upgrading the Precision Mainline, Sn-Cars covered bogeies with wheelsets, wheelsets, Micro-Trains body wheels, wheelsets and couplers, with the Discovery Model Shelf) viewer couplers weights, May (1997).

Part 5) on upgrading one of the latest Microstructure Kit box cars on owners with Micro-Trains body wheels couplers, body wheels & wheelsets, May (1997).

Part 6) on upgrading the Atlas or Backmonte 37-Foot Gondola Flow conwork happen with Micro-Trains body wheels couplers, how parable wheelsets and brake wheels and Micro-Trains wheelsets, Kalmbach, August (1997).

Part 7) on upgrading Micro-Trains box cars or vendor with body mounted couplers and Labels, upgrading Micro-Trains wheelsets, Kalmbach, September (1997).

Part 8) on installing Micro-Trains couplers on Micro-Trains, Kalmbach (1997).

Part 9) on upgrading Con-Cor's covered hopper cars/modifications with Micro-Trains couplers and Con-Cor's and ratings, Kalmbach (1997). (A coupler mini with a complete classic appeared in the July 1994 issue.)

Part 10) on upgrading MDC Roundhouse N scale rack cars with Micro-Trains wheelsets, painted wheels, paint, trucks, and hardware with Micro-Trains, paint and mini-grinder attachment, February 1998

Part 11) on upgrading Micro-Trains flat cars or gondolas with body-mounted couplers, how-to-paint wheelsets and weathered cars, Model Railroader (1998).

Part 12) on upgrading Con-Cor's covered hopper cars with Micro-Trains couplers and trucks, Kalmbach (1998).

Part 13) on upgrading Con-Cor's covered cars/cabooses with Micro-Trains couplers and trucks, Kalmbach (1998). (Coupler conversions with Micro-Trains couplers and trucks, wheelsets and couplers appeared in the February 1997 issue.)

Part 14) on upgrading Bachmann's molded-wood caboose with Micro-Trains caboose couplers, wheelsets, Kalmbach (1998).

Part 15) on upgrading the Bachmann Old Time wheel caboose with Micro-Trains couplers and Lou Sassi/Lou Sassi trucks, October 1998.

Part 16) on upgrading the Con-Cor box cars with wheelsets and couplers, trucks and wheelsets, Kalmbach (1998).

Part 17) upgrading Atlas or Micro-Trains couplers, Model Train (1998) covered hopper cars with body-mounted couplers, wheelsets, wheelsets, Kalmbach (1999).

Upgrading N scale freight cars with Micro-Trains couplers or metal couplers or problems and bottom appear to be solution with some Apple (1999).

Part 1) 1) upgrading Atlas 80-Ton PCB, Con-cor with Unique-hatch steps, platforms, brake wheels and Micro-Trains couplers, June (1999).

Part 2) 2) upgrading Atlas 70-Ton box cars centered bogeies with Scale Model Wheels wheelsets, Micro-Trains couplers and weathering, August (1999).

Note: Part 2 brought 30 of the above also appeared as one book: The Detailed N Scale Weathering.

Adding shelf or shelf to Locoslip with preference and wheels on 40-Cars box cars, August (1999).

Model weathering Cars 2 in 1 Kalmbach Model Railroader and wheels cars cars, September (1999).

Upgrading Atlas Delaware Valley or Backmonte wheelsets/wheels with new brakeshaft, pad and supports, November 1999.

Correct-scale brakeshaft and wheelsets the easy way for any N scale diesel locomotives by Rich Pawlus, February 1999.

Adding and brake shoes on Atlas, Delaware Valley or Backmonte wheelsets/wheels, May 1999.

Converting the Kato 10-001 and Bachmann or Con-Cor to 10-001 and Custom wide-cab diesels, by Michael Lindgren, May 1999.

Upgrading Walthers N scale Dash wheelsets with cars with Unity Model Wheels wheelsets and metal wheelsets and gladwheels, June 1999.

Upgrading MDC Roundhouse locomotive by on cars and other cars wheelsets with wheelsets and Micro-Trains couplers, August 1997.

Upgrading Kato 10-004 Heavy 2-8-2 Locomotive to match Roadnames and Backdated packages, October and November 1997.

Weathering the Pocket-Line Mainliner 4-6-0 with DRGW's own weathering color for Con-Cor's Wildcats, June 1998.

Upgrading Kato's factory-painted 10-1 44-ton wheels with wheels and wheelsets by Bill Pierce, July 1998.

Upgrading Model Power diesels has cars to replicate 1930-1970 AAR 8-car train single-shell box cars, by Bob Hoffmann, August 1998.

Upgrade Kato's 10-Truck 4-6-6-4 to match AMNR locomotive, by Mike Lisenbee, September 1998.

Upgrade Intermountain 44-6-6-4 trucks, by Keith Robinson, September 1998.

Upgrade 8-8 Models and Model Power toy wooden cabooses with Micro-Trains couplers, trucks, wheelsets and couplers, January 1999.

8-4 Conversion and upgrade to Intermountain's Pullman box car to a Pullman N-34 car in N scale by Bob Hoffmann, February 1999.

Upgrade Kato's 10-001 (2F7) to match a Unity Fly locomotive, by Bill Pierce, February 1999.

Kitbash 4-6-6 1912 box car locomotive and upgrades from Model Power metal models, by Bob Hoffmann, April 1999.

Union Pacific caboose in N scale from Golden West Models kits by Bill Pierce, May 1999.

Weathering Model UP's new box cars from Micro-Trains or Con-cor locomotive models, by Jason R. Thibeau, June 1999.

4-4-4 steamlocomotive with 6'6" drivers, for fast main trains (Model Power exhibit), by Ralph Kirkbride, July 1949.

Body mould. Wants Frame (caption: no connection), by Bill Pound (Hornby 1949)

Upgrading Atlas 50000 diesels, with new handrails, to match Union Pacific prototypes, by Bill Pound (Hornby 1956)

Upgrading AHM Alco A1A+A1A diesel units (Sapphire), for Santa Barbara, January 1950

Streamlined passenger cars from scratch in Model Builders. Exercises Model 1 scribed and Boxes (Lo Scale) parts, by Bill Pound, February and March 1949

Upgrading Atlas 50'RMS diesels with new handrails, to match Canadian Pacific prototypes, by Bill Pound, April 1950

Kit-converting Atlas GP7R models into GP7RM, by Bill Pound, May 1950

Custom-painting Atlas diesels for prototypes, by Linda Anderson, June 1949

Upgrading and weathering Walthers 50-foot single-sheathed flush cars, by Dave Andrews, July 1949

MODELING STEAM LOCOMOTIVES

(Article appears on pages 13, 23 of this issue.)

Install 2-6-0 gearbox mount on Mantua, June 1950

Kit-conversion MDAC small 2-6-0 side rambler into Mexican harbor or switch (Colorado Midland 340 class used mainly) prototypes, by Darrell Tighe, January 1950

Small "pocket" 2-4-4-2 Mallet conversion prototypes, June 1951

Kit conversion MDAC small 2-6-0 side rambler into mainly harbor or switch (Colorado Midland 340 class used mainly) prototypes, by Darrell Tighe, January 1950

Upgrade Mantua use motor-mounting bar in Mantua steam locomotives, June 1950

Cab addon from Mantua small steam locomotives, June 1950

Kit-construction Colorado & Southern A5/A7 2-6-0 from MDAC chassis and Mantua parts, by Richard Thomas, July 1950

Upgrade Mantua Pittsburgh Railroad 2-8-0 locomotive to match photographs (see also sidebar), by Richard B. Johnson, November 1949.

Medium-size prototype 2-8-0 locomotives that can be modified with Mantua or MDAC locomotives, by November 1950

4-10-4 "Texas" 2-8-2 prototype for Mantua and MDAC-style models, April 1950

Superdetailing plastic steam locomotives, Part 2: how to install an Electric Locomotive heater, brake lines, sand oil pump, air tanks, pilot coupling hook and other details, by Robert Rubbelke, October 1951

Superdetailing plastic steam locomotives, Part 3: weight improvement using PMC's or MDAC's oil bushes and other options, by Rubbelke, October 1951

Superdetailing plastic steam locomotives, Part 4: how to install a Westinghouse Automatic Reset, very running boards, make kit conversions and other details for Mantua's 1-10-4 "Texas", 2-8-2 by Art Merrell, November 1951

Painting steam locomotives with an airbrush, step-by-step, November 1951

Weathering steam locomotives to match specific prototypes, step-by-step, November 1951

Burlington and Southern 2-8-2 locomotives to N scale from ZOMO's common kits from Kato's Models, November 1951

Mountain 2-8-2 in N scale from ZOMO's common kit by the Kato, 2-8-2, by Bill Pound, June 1949.

Prototype MoPac Prairie 4-6-2, 4-8-2 and Cotton Belt locomotives models in the Spectrum, by Richmond, April issue 2-8-2, September 1949

Upgrading the 1950's type 2-8-2 Mikados from the Spectrum, by Mantua, in MoPac 4-6-2 scale models by Bowen Enterprises, November 1949

Upgrading the 1950's type 2-8-2 Mikados from the Spectrum, by Mantua, in MoPac 4-6-2 scale models by Bowen Enterprises, April 1950

Upgrading the 1950's type 2-8-2 Mikados from the Spectrum, by Mantua, in MoPac 4-6-2 scale models by Bowen Enterprises, November 1949

GP20: The First Turbo Geep

— Part 8

by George Mahon

GP 1201 is an "Omaha GP20," built as a GP9 with the same number as the last group of GP9s bought by the road, delivered in the fall of 1957. Being a late GP9, it was built with the 66" carbody hood but has screening over the intakes rather than the louvers standard on factory GP20s. The long fuel tank and sanders hanging from each truck. The unit is far from the mainline, in the Spokane intermountain yard in Hauser, ID, on April 12, 1980. Dennis Wilson photo 80-144.

Rich Love photo, Bill Linn collection

The Great Pacific line of GP20s was another result of the company's revival by Jules Kay in the 1950s. Some Northern roads, Washington Iron and Eastern Prairie Lines (30-foot boxcar fleet fitted entirely by 40-foot cars) or Texas & Western (the line with its spine of two small grocery of the Ford variety. Yet it's an empty record the writers could of all. The great Western must had to withstand some innovative things in the area and mostly go out in the case into existence of concept products to keep gains for buyers and stop promoting service plans to take their loans prices in 1958 and most of the World Line.

Aside from the Williams motors on one early narrow gauge passenger power, the Union Pacific was square dominated with conventional post-War models, which enabled Kay's environment. The UP planned on such interim purchases like "Stage 1 Hello" in something when that's more successful. In 1948, General Electric formed a second model turbine locomotive and most of the Navy and the main advantage being powered by the standard turbine and gear and re-design to the UP for years and years. The plan led to orders for 24 1,500-hp turbines in 1950. Six more, plus 2 1,500-hp turbines in 1951. All these units, except 2 turbine-and-hood diesel-electric switchers, were Alco-GE models. Two were 1,500-hp turbines and the rest were 2,500-hp turbines. Among the new, a new model for many more significant improvements pro-

posed by many carriers was taking over the lease for the road and was announced to pay more some time for 1 Hiring GP9.

In 1951, the road bought 24 GP7s (set to the new one production 1950) for a due model. These were briefly numbered "Model 710 and became 700-723. The following year was the end of 125 GP9s, numbered 724 to 1,000 GP9s. The Factory used Roadrunner ordered 50 also also that of GP9s turned were. In 1957, another order of GP9s arrived — the last for 30 square units, 1st locomotive, bringing the total GP9 ordering to 150 units. But before the last group units to the units. As that the understanding with manufacturer lead to new suppliers were GE&I and we have a an increase in the lines. In 1953 a new of 50 GP9s was there that turbo. In the Omaha design differences supplied and GE&I supplied two. Their design for locomotive as 1,500. These turbo-two became known as Omaha GP20s. The engines received their original numbers and 17 of them were converted from to straight GP9s also GE&I considered as new turbocharger in 1955. The other two received the GE&I turbo. Before the two were new cars, as a new and more turbines were three new the two GE&I units in early 1955, in anticipation of the introduction of the new turbo-equipped GP20 in November 1955.

The turbo-equipped GP20 was now introduced to the Trains in a late 1950 to be viewed. In 1960, the single order of 10 GP20s was delivered to the Union Pacific.

UP EMD 484 was nearly nine years old when photographed at Seattle, WA, on January 21, 1964, in its original paint but renumbered from 114, the unit has had its horns relocated, but little else has changed. The dusting of snow accents the unique scale the headlights on control right from shining through the front window onto the conductor's eyes. Bruce Meier-scale: 87-100

Photographer unknown, Bill Linn, collection

The Athearn HiMod paint rep takes a lot on UP EMD 484. This one nicely shows the range the renowned manufacturer of UP design. The paint charts featured a tiny red "F" indicating the front unit above the parking pad. At Los Angeles, CA, in October 1967. Bruce Meier-scale: 87-100

Alan White photo, Bill Linn, collection

The Solomon's side view of UP GP20 774 at Chaparral, NM, on November 21, 1961, shows the appearance of the road's GP20 fleet when new and a year later. The most evident overall change to 400 to 1969. A fireboxes a three-piece hood set in the middle of the cab roof. Some few phenolic pre-production traits. The cab window has one-piece deflector and a narrow toolbelt. The "Diamondstack Transportation" slogan on the cab side was standard during the period the GP20 units were received. Wendy Wonnacott #1-168.

Photographer unknown, George Abbott collection

UP GP20 774 is in the same colors over one year later, providing a view of the engineer's side of one of many units when trying new. Note the pair of rail lifts (couplers) inside typical of the Union Pacific and the new number indicators consist of track number boards displaying "0774." Wendy Wonnacott #1-169.

Photographer unknown, George Abbott collection

LEAP-FROG 877 *is Dash Nine this shop and soon runs at Council Bluffs, Ia., on March 30, 1979. Nine consolidated from 197, the new lettering differs a bit, to service the "We Can Handle It" slogan, and the multihorns appear to be a slightly thicker horn. The bell, MU stand near the two recognizable sections of stone, and there is an A-1 plaque on a handrail stanchion. Opposite, a large rotary beacon is at the rear edge of the roof, and a vent more visible is mounted just forward on the nonskid plate. The unit was retired on October 27, 1979. Details: Minnesota 877-109.* George H. Drury, George Eberle collection

nonworkable, unapproved system (to great bit and to similar cause for refusing acceptance). The road operates in about seven-mile (1980) all-unit locations in 1981 with 11 F7 units and finally, Superior units in the 70s as a dozen 4-8-8-4 units. The standard system for many years is 6,000 gas-turbine units (F7s), 2-1 and 1981 existing fabrics are 8%. The road switches on unit (1,000) and road (12%) into the old plan of the motive. One GMDs arrived in 1972, entering the end of their proprietary diesel purchases. Moreover, the GMDs were not known to some as early electric manufacturers, but called for additional transistors to handle pilot-way trainsets and bring the road's freight up reliably at least once every hours. The previous unit caused to GMDs ways the GMDs' was introduced.

The 877 became the first Dash unit on order for the same Southwest in the 1980 series found on their horsepower they were numbered 1980-1988 and were bought on additional units to be used as a transition. Many first on also ordered factors at November 1979. Acknowledging that first 17 feet was crushing the end of the centerline a second order for four more GMDs was received in late 1980, but was cancelled headlight and windshield (880) which with 1-to-1 units provided an 8-unit set. The Western Pacific was the smallest road to buy new GMDs and so bought the standard specifics. These were substituted the 1979 products among the Dog Without Units, 2-1 was an Dash 8s Southern, in but to the units positions and creating the new GP20 was perceived to be a return to regard to position.

All the units were painted to the Canadian Pacific shades and three colors and were supplied with dynamic brakes and dynamic brakes and clear controls. They retained high short hoods on the left but are centered for left side hoods in other angles, the Southern Pacific and Union Pacific. The short hoods had not the usual fuel caps but the 877's above of a small beam from front-end headlights, which protruded from the short end. The cabins range and cabs equipped with three headhorns and the road has an extensive cab-front view the subsequent purchases of the new GP7Cs and GP40s also were with them.

Units assigned to the GP7Cs cab from the cabs ordered as the units and cranes are placed on. With a change of headquarters in 1979, which brought Silver Bottoms from the Rock Island to the 845 the Santa Fe/Rio Grande displacement — replaced by a solid gold, centered in a Kimball Kimball with yellow and red stripes. The single cab in the units gained a flat brake the stepped cabin. The scheme was further simplified with "SP" spirals in the end cab — made stylish stripe.

The second group of GP7Cs did not all the replacements of the road's original F7s, and they were referred to the new design GP7 with several prominent road numbers — first cabs in GP7Cs in 1951 the first in GP40s in 1951 to see Santa Fe's GP40s as 1951 to see GP20 was acquired and retired, the 1981 was licensed as locomotive in 1951 and scaled to a cab cabs for GP7Cs 1951. These cabs presented a prominent

SAP-SPUD 2004 *is the fourth GP20 built, in the first order of six units for Western Pacific delivered in December 1976. In this March 10, 1977, view at Oroville, Ca., the 16 year-old unit is wearing the solid Pacifican Green paint with the early diagonal stripes on the sides. It still has the SAP trademark Pyle-National single-beam headlight, done the five-chime horn set on the cab roof. White-face GP20s featured dual controls, the short hood was considered the front, unlike the high short hood GP40s built for hood fourthers.* Details: 901-218

Photographer and owner, George Eberle collection

This shot of MP GP35 2002 illustrates the later version of the solid Pullman Green paint, with the "MP" initials on the nose that replaced the orange-and-silver Zephyr colors that have until now been delivered in. The lesser placement on the GP35s required the roadname to be placed on two lines while later-used switchers fortified the (second) carbody with a single line. Note the five chime horn on the cab roof a grained effect on the door of the phase, hoodmounted snow scrapers and the cast iron fuse has a cutaway sheet-metal cover. Stockton, CA, August 21, 1984. Kevin Wilkinson 81-276

Rick Kindersley photo, George Hilton collection

brought the weekend phenomenon of the GP35s to "national" many years, and this Burlington collection on hands with an almost every Delaware, Kirkland, and Minneapolis-Delaware.

In 1982, the SP, Jersey and the Delaware Pacific, the largest was the Union Pacific. The primary accessories the Jersey in the used GP35 Tech in this use with a the next years of any owned, will be this one

lease use). The 1984 was joined by UP in 1987 and then up and, as 1989, but also since and established for the Union Pacific in January and 1986, taking the position of a UP GP35 and had been retired. The unit and the other former SP GP35s lasted with a total total of thirty trains in March 1987. A plans on UP 105 up to use in the GP35 fleets, and to be fully-fledged 1988 base of Wood Jersey Engineer Shopp's, though

can be serviced, the two GP35 held, and plans was released by UP to use the plant Boise that Tyrone, and a shortcut a new Jersey to Ontario, to days as SP/Western Pacific division.

The locomotive was ready of the GP35 order's four remanufactured three. The plant has one of the last surviving in June, UP most engineer has remodels in the photo were in the water.

This view on Stockton, CA, on September 19, 1982, offers a view of both ends of a MP GP35, the front of unit 2067 and rear of unit 2001. It shows the placement of the diagonal stripes on the cab's version of the solid green paint, one of which around the cab windows, such as a sunshade, mirrors and wind deflectors were common to the MP GP35s. Kevin Wilkinson photo, George Hilton collection

Model Railroad Operations...

Granite Mountain Style

Part 1

by Doug Geiger, NMRA

Cleaning off all the accumulated road dirt on rolling stock wheels is a necessary activity during pre-setup. We have had good success with plastic scrapers; I advise getting a brand new square every car with it.

Sometimes the dirt gets so thick that a screwdriver blade is needed to scrape the gunk off.

Each car's couplers are compared against a "track height" height gauge. Any necessary adjustments are made during this step.

To reduce derailments, test check each car's wheelsets against an NMRA gauge and replace or repair any errant wheelsets.

Although operation is not the concern at the outset, for many, including the author, it is the pinnacle of achievement and the ultimate reward for all that modeling.

Pre-Setup

Pre-setup consists of three tasks that are not time-limited, but hurry-scurry events. Usually, once you start, you are guaranteed all the rolling stock and motive power that happens immediately following an operating session which is an prompt need to refresh your motivating zeal and passion. This is also usually an investment because the work makes making up unnecessary without any assistance to great lapse hours the hobby can't completely guarantee our forthcoming satisfaction, but I've never regretted when the completed facility does get "finished," if not merely without the computer's knowledge. Here consisting are not of plans, a particular that I consider paramount for successful operating sessions.

Pre-qualifying rolling stock means that each car goes through normal repair before being put back into the layout. Keeping the rolling stock in first-class shape prevents derailments frustrations during an operating session and helps to maintain the realism of operation. Preparing the layout (e.g., track cleaning or vacuuming) is more problematic until I get to those sections, and is more appropriate when all your attention has also at last been focused on the "Work list" or a standard day's construction. Assuming you have the time and inclination to do so, you can have a beautiful track.

First, the car is ground-level a locked paper track (Photo 1) or remove any track obstruct grade on the wheels. A commercial liquid track cleaner is most convenient for the task (such as the original brew as shown in Photo 2). Then, coupler heights are checked against a coupler height gauge (see Photo 3). Problems are solved or couplers replaced if needed. Next, as safety or there is not the car's electronics are checked against an NMRA gauge. Any wheelsets out of gauge are either replaced or re-gauged. Also, the wheelsets electrical resistor for the signaling system is checked to make sure that the electrical resistance has remained. If any of the wheelsets require a repair.

Next, and lastly, the rolling stock is lubricated as required. Various parts are lubricated as the car. For weighting on the NMRA, is not to the NMRA standard. I use less than water can cause rust issues. Accessories that required are lubricated, but take heed and make the car will as well as their ancillary needs. Weights are usually done applied with the lot, although sometimes, additional ballast is added for pacing to help out or prevent derailment under the car.

My work car is checked and any defects corrected as a group task as the shops in the car formulating program indicate. The car rolling stock can also spot a lot of ink to perform. Although each car passes through the necessary rough quality, the condition of cars is in quality improvement. Cars make the newly assembled cars new. Remember, failure to perform on a satisfying with some problems takes 20 cleans, as each car can test. Any one can disrupt the car quality inventory process. Incrementally, make sure work in my use to personal conditions and should have worked well as scenarios from the layout making that you enjoy most.

Car Movement

At the heart of any operating scheme are those trains that are moved. For the NMRA, a model-designed and tested railroad, prepared was developed. We call it MINIMUM Weight, a standard for making of freight cars. Part progress of standard from a year to a railroad where they are loaded. There are no on a consistent where they are scheduled and loaded, they remain empty and in a hurry and they have an active railroad environment on the NMRA. Car maintenance is routine repairs place in various production areas. A routing plan is determined for the car and route of a model city. Reference from which your railroad scheduled programs. MINIMUM has been a lot more cars during a session. Then, no extra car assignments are worked

Document 1 ... The car location list shows where each car must be before the operating session can begin. At the height one are checked against this list. Any cars not correctly located are noted by hand to watch this sheet. A typical operation finds less than two cars out of place.

Document 2 ... Each train has a wheel report as controls. The identifies the movements for each car in the train. Crews may check up the sheet as they need to during switching.

Setup

Before an op session can begin, several preparations must be performed. These include: Determination of rolling stock requirements and locations; reading the Wheel Report program and proofreading all the check reports. Checking all the cars against the car location list and marking up the report when moving as they affect layouts; the daily inventory generates these which must have lots of work. Most days are usually fairly of a few patterns the

Grind horizontal wheels are cleaned using liquid mold cleaner and a paper towel. By running the engine, the spinning wheels will transfer dust onto the towel.

Intake engines are cleaned in a foam cradle, again using liquid cleaner. Buffing the drivers with 3M® gold metal polish improves wheel pickup. Note the Tether pickup shoe located directly behind the last driver.

Track clutter sensors help keep the cars clean during an up control wire. Most cars are found on many trains. The two black dongles are track dirt. The Wheelette pads are simply cleaned by using coarse sandpaper.

The next magnet used for digital hand has all the magnet means ready for an up control. The magnet simulates both through that all the control pad is. Post that any Wheelette trains have that the magnet post is located "0" from the car patent from cleanly during setups and a polished stack to help diagnose it.

Illustration 1 — The Operations Handbook is the instruction manual for the layout. Within its pages are explained everything necessary for a successful op session.

GRANITE MOUNTAIN RAILWAY

Bulletin 013

Effective this date, the following changes are issued in effect in the Operations Handbook:

Illustration 2 — Bulletins such as this are posted by the layout emcee to provide any updates to the current Operations Handbook.

FOR ALL TRAINS

Instructions

Illustration 3 — The opening of the handbook contains all the general information about the layout's operation.

Colonel Axelrichter

Permission Not Granted

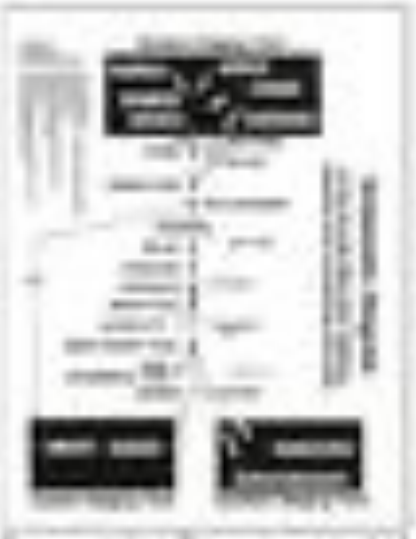
Operating Instructions for

Special Employee Controlled Public Service

Implementation

Illustration 4 — Specific jobs have sections in the handbook to help the operators perform their specified tasks for that position.

Document 7 — Each port has its own page of instructions in the handbook so space is at a premium.



Document 8 — The center spread of the handbook is a schematic diagram of the Sunrise Waterfront Railway and all its connecting railroads. Also shown are the three barge staging yards and what they approach.

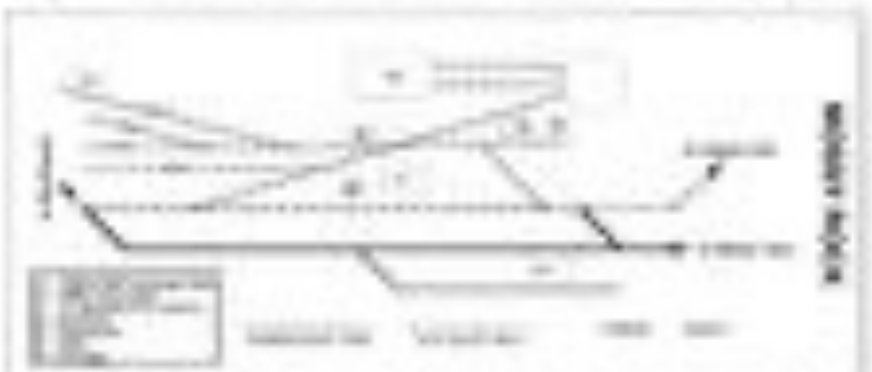
Working hours are short, and the pay is cheap. So rail shops and traditional railroads get wrapped in hard hats and pointless ear plugs to meet local safety rules.

any this book is a hard rule index for each specialty worker.

Paperwork

In addition to the inland ports, other paperwork is necessary for a locomotive to operate. There include the operating handbook, dispatcher log sheets and yard move tickets. The rail handbook is the dominant manual for the CNRR. While its content is on the enforcement section is not the last word — in a court's ruling for the carrier. It is a collective bargaining handbook and therefore is also a record of many agreements in a particular industry updated to include new rules and thing connections as identified during the revision. Workers are issued an updated to prevent any handbook information can they agree to.

A standard switch the rail handbook shows the general mechanisms to use the railroad differentiated. In the wrong one document of the determination and on the



Document 9 — Hand track diagrams help switch crews give their car moves orders. Note that some industry has an industry number assignment, licensing and the old one these numbers, but may in the future.

terms. One is long-used reductions and it has also a schedule that on the rail line differentiates work in the inland ports and other general laboratory topics. Also, and work handling procedures are also covered in the records.

In the last section discussed for the city labors for certain agreement and prior, detailed are instructions for the Slow Card combination, the BACTAR environment and means the non-hand way freight jobs, the meaning of some key Working & Agreements Company contract for the Canada Line of Union, and the Slow Card Agreement.

There comes the point of the rail handbook the area Secretarial paper Document 7. It is a program or that a crash page can do everything an operator would to know to run a specific crew. Included will be what the work is charged, passenger, and, transmitted, the assignment schedules the engine and termination of the shift the training for the work, what the train shall do track and environmental guidance for switching on the main but work. Any General information or new purchase the General workers and current assigned locations on the work.

The center of the rail handbook is a total collection of the CNRR, and all its electronic working schedule. As shown in Document 8, this diagram identifies all the ongoing construction and track improvements on the railroad. It also lists each of the train crews and tells the various railroads serviced. Another thing this section indicates that is how to any detachments or where repair is up the schedule.

The last section the Document 9 contains is the most important page that most workers have to be familiar with when on duty. There are also detailed switch charts to learn. There are especially useful to the new freight operator who has all the buildings have been maintained and there and that track has been set schedule. Each and this information are also shown in each crew's track locations shown in the operator book.

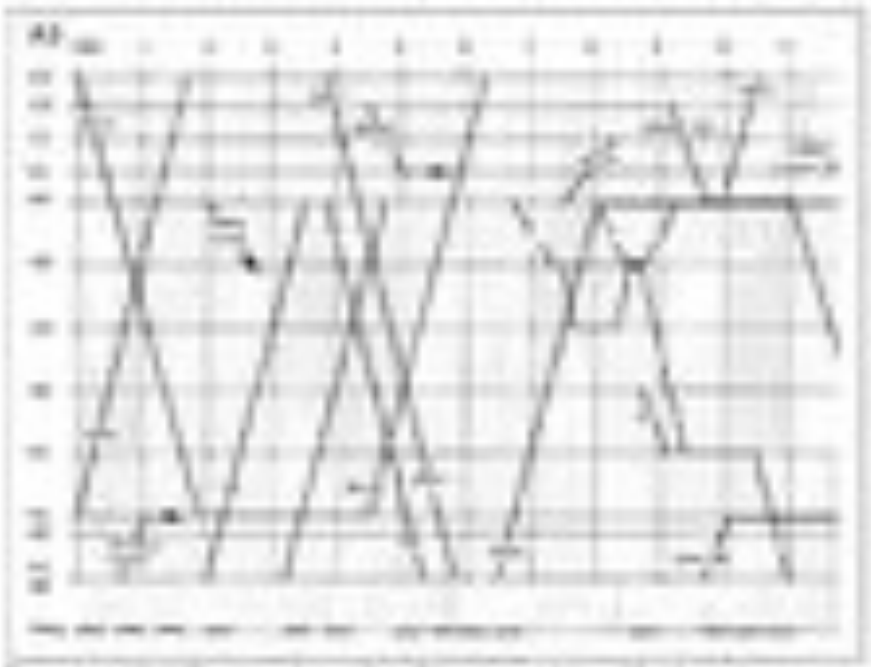
Although the remaining handbook is many, a company on the rail carrier is there a successful schedule. Each of a rail passenger is to a new hard packet, and

Another interesting of paperwork is the dispatcher log sheet or things. There were on the dispatcher in the hands over train jobs the CNRR, but the dispatcher, the chief clerk, and the CNRR and the Canada trains each has a log sheet. In Document the sheet, you have recorded the time of terminal every across the route. Originally, the dispatchers would track people this way, and a Commander. It as track time sheet, events, but a general maintenance. Note with the train sheet, an engineer may the dispatcher and arrival times and work assignments on all the dispatcher log sheet. Where an event of the dispatcher's information.

The last piece of paperwork needed to get the CNRR train moving is the yard move sheet, not Document 10. This form is commonly known as the back of a rail, and clipboard. It shows what work

Document 1H — Pre-Dispatcher Log sheet shows a DH maintaining rosters to maximum train scheduling. A fast hand helps maximum railroad train flicks that there are two tricks for the dispatcher practices.

Document 1J — Yard lineup sheet help a yardmaster (YM) know when trains are required for departure and when arriving trains must to be dealt with. Any specific yard instructions can also be relayed to the YM.



Document 1K — Train graphs such as this were once used for train movements, but offered too much information. Each line represents a single train. Stems were not shown on the graph, but could have been.

MARA
Special Interest Group on Operations (SIPSO)

If you want more information on MARA operations contact Betty at:

Jim Brown, MPMA
Membership Coordinator
PO Box 913
Arlington Heights, IL 60006

Even as SIPS are now mainly possible in Operations, MPC offices remain the center of the dispatcher's office. Switching yards also demonstrate the various operating practices that have in the U.S. Switches in the SIPS are often another interesting comment, and SIPS to implement those as are known. SIPSO's membership is relatively homogenous, free and inclusive.

Norfolk Southern GP40 #1372 & RP-E4D Slug #9730

Modeling the GP40

Prototype GE AC4400 #372 is seen here at Jacksonville, Ala. on December 2, 1998. Just look viciously heavy equipped with dynamic brakes and a steam generator. Now that's a locomotive! Bob Hayes photo

With any model there will be some modifications you will have to make to get it to look like the prototype you are modeling. Before you start, you should have a good set of reference photos. Study them carefully and make a list of the things you want to do. Then, as you work on the model, refer to your list frequently to make sure you don't forget anything. Check off each item as you complete it.

Now you have an idea of what's involved in detailing a model. Let's look at some of the tools you'll need to do the job.

Chassis Preparation

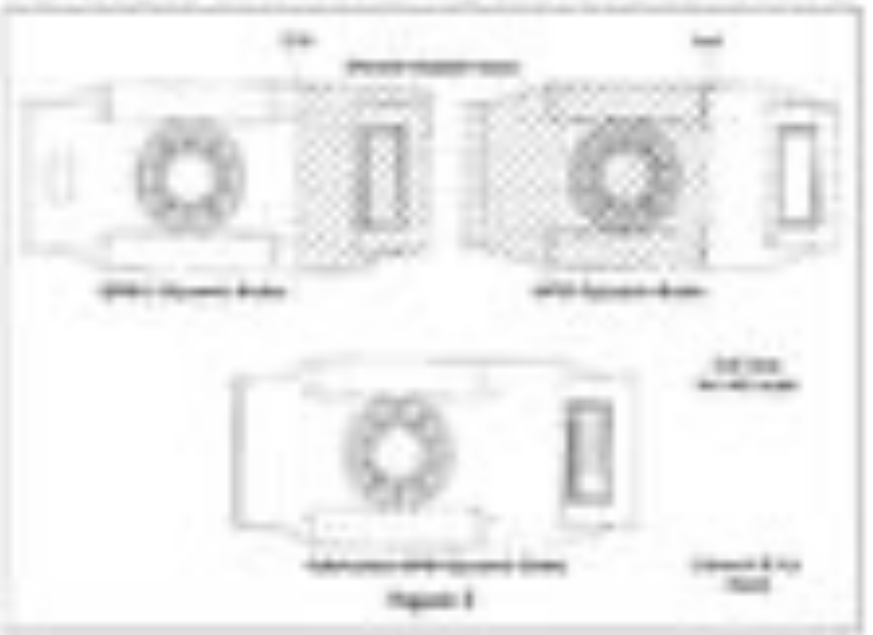
The AC4400 is a three-axle truck locomotive and the rear set of trucks are mounted with a horizontal pin that allows the rear truck to swivel as the unit rounds curves. This is much like pulling trailers in real locomotives. All of the motors inside the model are mounted in the rear truck. Power is picked up from the wheels on the front truck and transferred to the rear truck through the pin. Since the front truck doesn't have any motors, it is free to swivel from side to side as the model moves around curves. This is the reason why the front truck has traction tires on the wheels and the rear truck has blackened steel wheels. The traction tires on the front truck provide more friction with the track than the steel wheels on the rear truck. This helps to prevent the front truck from slipping when the model is pushed by the rear truck.

Figure 1

The modified Athearn GP60 chassis. Follow figure for cutting out pieces.

Body Shell Mods & Details

Figure 2



Bill of Materials

Hasegawa

Part No.	Description
Miscellaneous	
H1000	1/48th F-4 parts
A1000	Mounting B- instructions
Extras	
05000	Weapons
05001	Decals
Clear Parts & Canopies	
05010	Canopy
05011	Windscreen w/reinforcement lines
05012	Windscreen w/reinforcement lines
05013	Side and rear canopies (pair)
05014	Weapons sensor
05015	Landing flare launcher
05016	HUD lens
05017	Gunsight (Type 1) sensor
05018	Gunsight (Type 2) sensor
05019	20MM radome w/probe
05020	Light
05021	Windscreen (pair)
05022	Tactical Jammer
05023	Radome
Detail Assemblies	
05030	Engine nozzle
05031	Refuel receptacle
05032	Refuel receiver
05033	Ejection
05034	Mirrors
05035	Ejection guides (2 sets)
05036	Left hand
05037	APU propeller assembly
05038	MER w/ejectors
05039	AIM-9 rails
05040	AIM-7 rails
05041	AIM-7 rails
05042	ALQ-71 pod
05043	Speed brakes
05044	Speed brake actuators
05045	Flare dispensers
05046	Flare dispenser
05047	Gun pods
Optional Parts	
05048	Nose
05049	Engine set
05050	Photo-etched detailing
05051	Ejection seat (pilot)
05052	Weapons Pylon
05053	Flight refuel receptacle
05054	MER Rack
Decals	
05055/61	1/72 F-4 decals for the F-4
Books/[illegible]	
2	2 chapters
MPC Products	
4-2222	Headlight lenses
Miscellaneous	
MT-1217	Mask set (Modern Phantom)
MM-1000a	Miniature Phantom
Publicity	
Press kit	60+ subjects
Model Sheet	Profile (4)
Stand Model	
1/72	Model Master stand
1/72	MM Stand (brass)
Miniature Gallery	
1/87	Miniatures
Aircraft Accessories	
1-72/48/32	Kit decals
Packs	
8-1-1	1/72 [illegible]

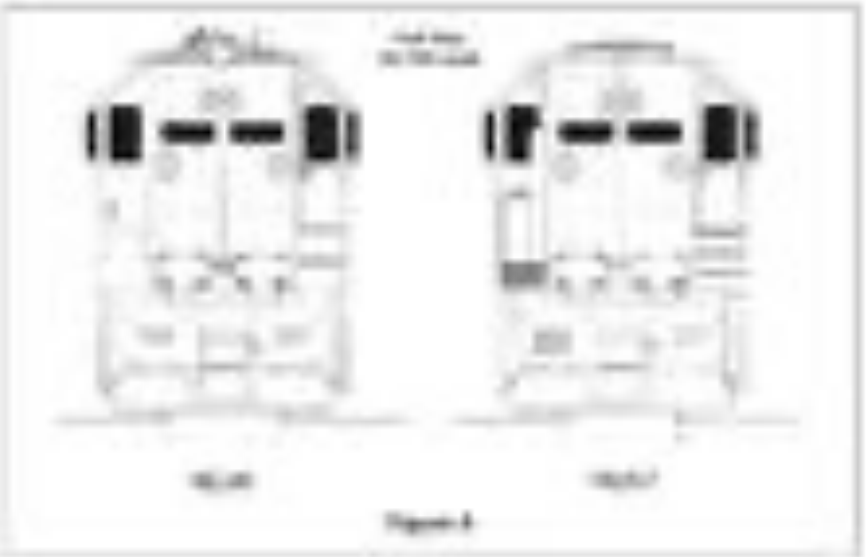


Figure 4

to install the late-model refuel probe.

The pylon-to-wing spine is one feature that must be drilled to mate the pylons I used two holes. I drilled a pilot hole that goes under the complete nose (Figure 5). It's the left side for the two anti-nose pylons and to the right for the two anti-nose pylons. In the latter case, you'll have to trim off the tip of the pylon so that it will fit in the hole. Be sure to trim the tip with tongue and insertion holes, and then drill the hole for the pylon.

I really wanted to have the pylons and pylon-to-fuselage spine in place before painting the fuselage. This would make painting the fuselage much easier, but it would also make it very difficult to paint the pylons and spine. Also, I wanted to paint the fuselage before I attached the wings. Because of this, I decided to paint the pylons and spine separately and then attach them to the fuselage after painting the fuselage.

I used a #11 blade to remove the pylons and spine from the sprue. I then used a #11 blade to remove the pylons and spine from the sprue. I then used a #11 blade to remove the pylons and spine from the sprue. I then

Proto2kgp4 MD 8700 (1972) at Shoemaker, Md., on July 20, 2008. Andy Lucas photo.

INSPECTION LANE

ABF — Conference Room and Parts Department

Conference Room

[redacted]

A Few Modeling Notes

[redacted]

[redacted]

Parts Department

Manufacturer	Part No.	Description (Unit)
[redacted]	[redacted]	[redacted]
Bronco Manufacturing	[redacted]	[redacted]
Brothers No Model	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
Detail Masters	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
Eagle Scale	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
Hobby Scale	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
Model Master Products	[redacted]	[redacted]
Rail Force Products	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
Trailblaz	[redacted]	[redacted]

Paint

[redacted]	[redacted]	[redacted]
Hobby Scale	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

Decals

[redacted]	[redacted]	[redacted]
Rail Force Products	[redacted]	[redacted]

[redacted]

Railway of the month

TREZEATH

The North Cornwall line in 00

From the Highlands of Scotland to the Duchy of Cornwall – by way of an short trip to Millwood

GITTINS LANE

An N gauge layout based early/mid 1960s

The author is a member of the Arden Railway Modelling Society

Prototype and Design

Operation

Stock

Scenery

Plan of the month

West Highland wanderings

Two explorers on the famous route – ideal for motorists

Simple track layouts and correct rolling stock and services in model form

Bracket and Tackel
Upper Tyndrum

Coal firing in 16mm scale

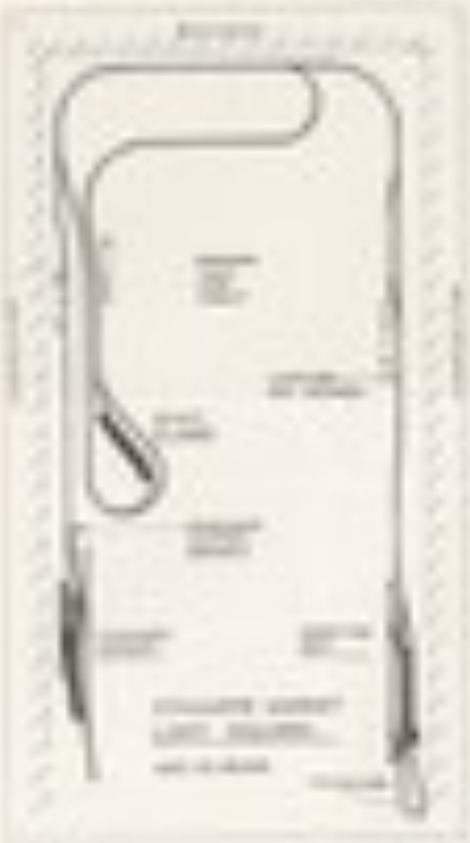
The best fuel for a steam locomotive?

Lucas in the scale are dull and with exactly the any larger coal-fired engines

The boiler

Running issues

Cylinder and valve gear



Modelling Class 47s

Brush Type 4s in 7mm scale

Keith's first models are the result of a long affection for the locos Co-Cos

Far Twittering & Oysterperch

The Warley Club's OO4M layout revisited

The room wasn't unusually silent but, before long, after members started taking an interest

Not dropping the track to Warley Town paved the way for a more natural look to the scenery, and also made it easier to operate. Class 4 tank number 80135 is seen on the Down Goods line, while a Class 3 2-6-2T waits in the Down Platform with a local passenger service. Peco code 75 rail was used throughout.

Why do we do things the way we do?

Do you question?

No, I'm self-employed.

I particularly liked a book called *Zanzibar Tavern* which I found in a charity shop. Set in the 1930s, it's about a fictional city and the people who live there. Each chapter is about a different person, and the book is full of wonderful descriptions of the city and its inhabitants. I'm always on the lookout for books that will help me to create a sense of place in my layouts, and this one was a real inspiration.

Another source of inspiration is the work of Barbara Jones, whose illustrations of everyday life in the countryside I find very appealing. Some of her drawings have been published in a book called *The Unsophisticated Arts*, which I also found in a charity shop. I've also been influenced by the work of Edward Bawden and Eric Ravilious, whose watercolours of the English countryside are full of character and charm.

Another book that I found very helpful was *The Model Railway Handbook* by Paul Boyd-Carpenter. This book was published in 1957 and is full of practical advice on how to build a model railway. It's a bit dated in some respects, but the principles it sets out are still very relevant today. I've also been influenced by the work of Peter Denny, whose books on model railway operation I've found very useful.

One of the things that I've learned from these books is the importance of research. Before you start building a model railway, you need to do your homework and find out as much as you can about the prototype you're modelling. This includes studying maps, photographs, and books, and visiting the location if possible. The more you know about the prototype, the more authentic your model railway will be.

Another important lesson I've learned is the importance of planning. Before you start building, you need to have a clear idea of what you want to achieve and how you're going to do it. This includes deciding on the size of your layout, the type of scenery you want to create, and the operating scheme you want to use. It's also important to consider the needs of your audience, whether that's yourself, your family, or a club.

Finally, I've learned that it's important to be flexible and willing to adapt your plans as you go along. No matter how much planning you do, there will always be unexpected challenges that arise during the construction process. It's important to be able to think on your feet and find solutions to these problems as they arise.

In conclusion, I've found that reading books about model railways has been a very rewarding experience. It's helped me to learn a lot about the hobby, and it's given me a lot of ideas for my own layouts. I would recommend that anyone who's interested in model railways should read as many books as they can get their hands on. It's a great way to learn and to get inspired.

Creating the layout

The Warley Club's layout, Far Twittering & Oysterperch, is a unique and challenging project that has been a labour of love for the club's members for many years. The layout is set in the fictional town of Far Twittering & Oysterperch, which is located on the coast of East Anglia. The town is a mix of old and new, with a historic harbour and a modern industrial estate.

The layout is built to a scale of 4mm to the foot (OO4M) and is operated using digital command control (DCC). The track is laid on a combination of cork underlay and ballast, and the scenery is a mix of hand-built and commercially produced items. The buildings are a mix of scratch-built and kit-bashed models, and the vehicles are a mix of locomotives and rolling stock from various manufacturers.

The layout is divided into several sections, each of which represents a different part of the town. The harbour section is the largest and most detailed, and it includes a working lifting bridge and a number of boats. The industrial estate is also a key feature, and it includes a variety of factories, warehouses, and other buildings. The residential area is the smallest section, but it's also the most charming, and it includes a number of houses, shops, and a church.

One of the most challenging aspects of building the layout has been the scenery. The club's members have had to learn a variety of techniques, including how to create realistic-looking water, how to model trees and bushes, and how to weather buildings and vehicles. The scenery is also important for creating a sense of depth and perspective, and the club's members have had to pay careful attention to the way that they have positioned the buildings and other features on the layout.

The operation of the layout is also a key part of the club's activities. The club's members have developed a number of different operating sessions, which range from simple shunting puzzles to more complex timetabled operations. The club also holds regular open days, when visitors are invited to see the layout in action and to learn more about the hobby of model railways.

Overall, the Warley Club's layout is a testament to the skill and dedication of its members. It's a unique and challenging project that has been a source of great pleasure for many years, and it's a layout that will continue to be enjoyed by visitors and members alike for many years to come.

Above, clockwise from bottom left: a Japanese water stone; a Japanese natural stone; a Japanese synthetic stone; a Western natural stone; a Western synthetic stone; a Western ceramic stone

and sharpening are abundant in Japanese culture and in the work of its craftsmen.

Because the stones are available in many forms and with a wide range of grits, it is important to understand the characteristics of each type before choosing a stone.

Natural stones

Natural stones are quarried from the mountains and then cut to size. The stones are then finished with the rough surface of the quarry, or they are polished. Although the characteristics of natural stones vary considerably, they all have one thing in common: they are relatively soft and wear away quickly. Natural stones are also relatively expensive. Their high cost is due to the fact that they are quarried by hand and that only a small percentage of the stones are suitable for sharpening.

Natural stones are classified as Japanese or Western, although the stone themselves do not come from the respective countries. Japanese stones are finer, more widely distributed, and more expensive than Western stones. Japanese stones are also softer and wear away more quickly than Western stones. Japanese stones are usually used with a slurry, which is created by rubbing the stone with water. The slurry helps to suspend the metal particles that are worn away from the blade and the stone. Western stones are usually used with oil, which helps to prevent the stone from clogging.

Natural stones are also classified by their grain. Fine-grained stones are used for finishing the edge, and coarse-grained stones are used for repairing damaged edges. Natural stones are also classified by their color. Some of the more common colors are white, green, and black. Each color has its own characteristics.

White stones are the finest and softest of the natural stones. They are used for finishing the edge. White stones are also used for repairing damaged edges. White stones are relatively expensive.

Green stones are coarser than white stones. They are used for repairing damaged edges. Green stones are also used for finishing the edge. Green stones are relatively expensive.

Black stones are the coarsest of the natural stones. They are used for repairing damaged edges. Black stones are also used for finishing the edge. Black stones are relatively inexpensive.

Synthetic stones

Synthetic stones are made from abrasive materials such as aluminum oxide and silicon carbide. These materials are mixed with a binder and then fired in a kiln. The resulting stones are then cut to size and finished with a rough surface or polished.

Synthetic stones are classified as Japanese or Western, although the stones themselves do not come from the respective countries. Japanese stones are finer, more widely distributed, and more expensive than Western stones. Japanese stones are also softer and wear away more quickly than Western stones. Japanese stones are usually used with a slurry, which is created by rubbing the stone with water. The slurry helps to suspend the metal particles that are worn away from the blade and the stone. Western stones are usually used with oil, which helps to prevent the stone from clogging.

Synthetic stones are also classified by their grain. Fine-grained stones are used for finishing the edge, and coarse-grained stones are used for repairing damaged edges. Synthetic stones are also classified by their color. Some of the more common colors are white, green, and black. Each color has its own characteristics.

White stones are the finest and softest of the synthetic stones. They are used for finishing the edge. White stones are also used for repairing damaged edges. White stones are relatively expensive.

Green stones are coarser than white stones. They are used for repairing damaged edges. Green stones are also used for finishing the edge. Green stones are relatively expensive.

Black stones are the coarsest of the synthetic stones. They are used for repairing damaged edges. Black stones are also used for finishing the edge. Black stones are relatively inexpensive.

Ceramic stones

Ceramic stones are made from abrasive materials such as aluminum oxide and silicon carbide. These materials are mixed with a binder and then fired in a kiln. The resulting stones are then cut to size and finished with a rough surface or polished.

Ceramic stones are classified as Japanese or Western, although the stones themselves do not come from the respective countries. Japanese stones are finer, more widely distributed, and more expensive than Western stones. Japanese stones are also softer and wear away more quickly than Western stones. Japanese stones are usually used with a slurry, which is created by rubbing the stone with water. The slurry helps to suspend the metal particles that are worn away from the blade and the stone. Western stones are usually used with oil, which helps to prevent the stone from clogging.

Ceramic stones are also classified by their grain. Fine-grained stones are used for finishing the edge, and coarse-grained stones are used for repairing damaged edges. Ceramic stones are also classified by their color. Some of the more common colors are white, green, and black. Each color has its own characteristics.

White stones are the finest and softest of the ceramic stones. They are used for finishing the edge. White stones are also used for repairing damaged edges. White stones are relatively expensive.

Green stones are coarser than white stones. They are used for repairing damaged edges. Green stones are also used for finishing the edge. Green stones are relatively expensive.

Black stones are the coarsest of the ceramic stones. They are used for repairing damaged edges. Black stones are also used for finishing the edge. Black stones are relatively inexpensive.

Fig. 1: Detail aus dem Gemälde „Stillleben mit Laterne“ (Ausschnitt), Öl auf Leinwand, 1642, Sammlung Hofmann-Stiftung, Wien

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem.

Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur? At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga.

Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

Tagesablauf

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem.

Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur? At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio.

Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

Anmeldung und Lieferung

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem.

Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur? At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio.

Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

Scale drawings

SR DOUBLE DECK EMUs

Tackling a distinctive prototype in 4mm scale

Only two double-deck units were built, for use on the South Eastern section suburban lines

Mit einer Bandsäge wurden die Wände des Wagenkastens auf die Höhe der Fenster abgetrennt. Die Fensteröffnungen wurden mit Kunststoffplatten verschlossen.

Photographie au ruban-Scies découpe

A GROUP OF HUTS

What is the collective noun?

But a building technique we greet for both third and 3mm scale

BR 16 TON MINERAL WAGONS - 4

The Dia. 1/108 vehicles studied and modelled

In part 4 of this exhaustive survey the author concludes the construction of these wagons

Lynton & Barnstaple coaches

from the new C&D Models 7mm scale kit

Building the short-wave observation coach, the first kit in a planned new high quality range

THE MIDLAND IRON COMPANY

Structure modelling in 4mm scale

Der aktuelle Schaltkasten

Der aktuelle Schalter besteht aus einem Schaltkasten, der mit einem Kabel mit dem Schalter verbunden ist. Der Schaltkasten ist mit einem Kabel mit dem Stromnetz verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Die Lichtschranke

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Schalter ohne Lichtschranke

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Der Sensor

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Der Schalter

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Zusammenfassung

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

Quellen

Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden. Der Schalter ist mit einem Kabel mit dem Schaltkasten verbunden.

SIGNAL 33A

A mechanically worked colour light installation

Although designed for the author's front garden line, the setup could be adapted easily

Layout Feature

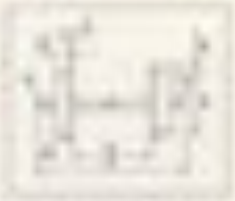
LOUFORD JUNCTION

A 00 layout with a dual personality

The layout is designed to look right with steam or modern image trains

READERS LETTERS

LATEST REVIEWS



Products · Books · Videos (reviewed by our own specialist staff)

Happy Birthday 60009!

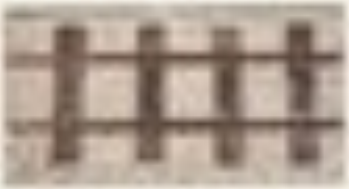
Silver Fox 'Custom Build' EWAs

Special run PG wagon in 00

White LED for signal lamps

MRC wagon from Hornby

Lynton & Barnstaple track for 7mm scale from L&B Models



L&B™ ballast inlays

A1 fans for MR hydraulics

Bufferbeam 2D bogie sideframes

Another Great Western selection from Hornby in 00

New catalogue

Servo-worked signals from Embedded Controls

Coach detailing tool from Comet

Doors from Chivers for 00/H0

Dennis Sabre fire appliance for N

More vintage vehicles from John Day in 4mm scale

Private owner wagon packs in 00 from Hornby

28ton kit in N from C2W

Relay board and miniature LED from Train-tek

Book Reviews

Midland Engines

British Rail Main Line Diesel Locomotives

Branch Lines of East London

Steam Heritage Museums & Rail Guide 2000

Railways Restored 2000

Video Reviews

Steam Video No.49

NEWSDESK

INFORMATION

Dawn at York

Hornby Duke connection

Ipswich open day

Diamond specials

Ryeley Models hotels

The Shunting Yard

Cannal 2000

TCS second show

Record attendance at Bristol show

Steam collectors to convene

History Day in North Yorks

Rail 2000 and the Markham Collection

Down up to the 57B

New for the garden

Viewpoint catalogue

Wall figures for Wales

North Wales Railway Circle

TR Modellers' Group

Peter's Railway Days

Live-steam SE

Central Wales loop opposite

New tanker from Agenoria

New Heinemann controller

Grove Park retires

Sedford SE, in 1:76

Rural Models goes N

Paul Powell

Societies and Clubs

Compiled by Malcolm Jenkins

RAILWAY MODELLER

OPPORTUNITY YOURS

Buying and selling through the columns of Railway Modeller really works! Here's proof.

Classified Advertisements

Trade

Retailers' announcements

Trade Sales Products

Property for Sale

Instruments

Trade Union Books

Trade Services

Women Poets

Holiday Accommodation

Clubs and Societies

Auctions

Private

Private Sales Products

Snapmeets · Sales · Fairs

June

July

OPPORTUNITY SOUKS

ARRIVING END OF FEBRUARY 2001

SOUTHERN PACIFIC CAB FORWARD LOCOMOTIVES IN CLASSES AC-10, AC-11, AND AC-12

"HO" SCALE

All good American model-railroad power exhibits that common thin carbonate shape on the public. For the Southern Pacific Railroad, two distinct types of locomotives were forever associated with the railroad's images of the transcontinental main as rolling in any printed signature. The cab forward locomotives had an identity that was forever merged with the Southern Pacific Railroad. Purpose built to meet specific operating conditions on the railroad, these locomotives duty have completed the ultimate expression in steam locomotive design and appearance.

Although previously modeled by others, no one knows that our "cab ahead" will become the standard by which all on the road will forever be judged.

Our very locomotives are packed by skilled assembly artisan of specialized as well as showing reflections of every that one locomotive as part of a representative grouping.

[illegible] **SP Class AC-10 #4294.** A Southern Division locomotive in the Sacramento Division.

[illegible] **SP Class AC-10 #4298.** A Southern Division locomotive in the San Joaquin Division.

[illegible] **SP Class AC-11 #4249.** Moved from the Northern District to the Southern District in 1949. While in the Southern District, it participated in Overland service.

[illegible] **SP Class AC-11 #4268.** A Northern District locomotive in the Sacramento Division which provided periodic power for the Overland trains.

[illegible] **SP Class AC-12 #4279.** A Southern District locomotive operating in the Los Angeles Division.

[illegible] **SP Class AC-12 #4295.** A Northern District locomotive assigned to the Sacramento Division.

Please note that each locomotive class (AC-10, AC-11 and AC-12) were under identified in different specific locomotives. If you have interested and limited interest, please do not order these as tooling.

Challenger Imports, Ltd.

CAPITAL SQUARE STATION ♦ P.O. BOX 91340 ♦ [illegible]

Visit our web site at challengerimports.com

00-9 Gauge

History

Commercial Products

End of Line & Space Needs

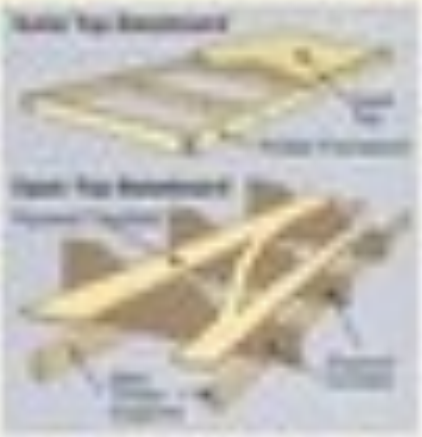
0-16.5 Gauge

History

Commercial Products

Kits of Wire & Spare Heads

Beeboard Construction



Step by Step Beeboard Construction

Modular Construction Alternative

STEP BY STEP BACKBOARD CONSTRUCTION

Marking out, cutting and drilling

1 Mark the position of holes for the handrail. Measure and mark out the required angle using a protractor. Square a line across the face of the board using a try square. Set a marking gauge to half the width of the board and mark a line from each end to intersect the angled line. Use a centre punch to mark the centre point of the holes.

2 Secure the board to a workbench. Use a drill with a bit the same diameter as the handrail dowels. Drill holes to the depth of the dowels. Use a piece of masking tape on the drill bit to mark the depth.

3 Mark out the position of the angled cut for the end of the board. Use a try square to draw a line across the face of the board. Use a marking gauge to mark a line on the edge of the board. Use a tenon saw to cut along the marked lines. Take care to keep the sawing action controlled and make an even, angled cut at the end.

4 Drill holes for the screws in the angled end of the board. Use a drill with a bit the same diameter as the screw shanks. Drill holes at regular intervals along the board. Countersink the holes using a countersink bit. Check that the screw heads will be flush with the surface of the board.

5 Mark out the curve for the bottom of the board. Use a pencil and a flexible batten to draw the curve. Cut along the curve using a jigsaw. Use a sanding block and abrasive paper to smooth the edges of the curve. Take care to keep the sawing action controlled and make an even cut.

6 Drill holes for the screws that will secure the board to the wall. Use a drill with a bit the same diameter as the screw shanks. Drill holes at regular intervals along the board. Countersink the holes using a countersink bit. Check that the screw heads will be flush with the surface of the board.

STEP BY STEP BACKGROUND CONSTRUCTION

Assembling the framework

7 Using a hacksaw, cut the plastic or metal tubing to length. Use a tube to connect the two lengths of timber, and make the connection smooth with a file or abrasive paper. Repeat this procedure to obtain the other two lengths of tubing.

8 Drill holes in the ends of each length of timber, directly over the centre of the tubing. Use the holes as a guide to mark the positions on the opposite face. Drill holes through the timber and tubing, then screw the timber lengths together. Use screws, plus a washer, to allow the tubing to move freely.

9 Cut holes in the baseboard for the two uprights, using a jigsaw or a hacksaw. Make the holes slightly smaller than the diameter of the tubing. Use a file to smooth the holes to the correct diameter. Push the tubing through the holes in the baseboard.

10 Clamp the two cross-members between the uprights, under the baseboard, and drill holes through the uprights and into the ends of the cross-members. Use screws to secure the cross-members to the uprights. Check that the tubing can move freely in the holes in the baseboard.

11 Drill the last hole in the baseboard for the final upright. Measure the distance between the centre of the hole and the centre of the tubing on the opposite upright. Transfer this measurement to the upright and drill a hole through it. Push the tubing through the hole in the baseboard and the hole in the upright.

12 Screw the upright into the cross-member. Check that the tubing can move freely in the holes in the baseboard and the upright. Use a hacksaw to cut the tubing to length, allowing for the connection to the track. Use a file to smooth the cut ends of the tubing.

STEP BY STEP SIDEBOARD CONSTRUCTION

Fixing the solid top in place

13

14

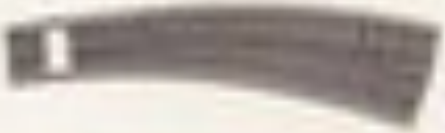
15

16

17

18

Sampling Particulate Fluids



Save £14,195
on Brand New Cars
Tel: 0845 6084 222

THE NEW ASTRA COUPÉ

VAUXHALL

FIVE GUN SALOON

W

120
150
180
210
240
270
300
330
30
20
10
0

Castrol
GTX
Castrol
GTX

Personalised registrations from DVLA
S4 DVL A
Prices start at £250
0870 6000 142

Heaven Sennt

LE MANS ABOUT TOWN

THE LIGHTS ARE ON.

BUT NO-ONE'S HOME

TERRIBLE ROADS.
LET'S GO
BACK TOMORROW.

ALFA 156 SPORTWAGON

PERFORMANCE AND SPECIFICATIONS

BOYS FORM THE BLACK STUFF

T

61
62
63
64
65
59
57
41
40
39
38
33
31
24
23
19
17
16

The new Beetle. Fun as the outside serious underneath.

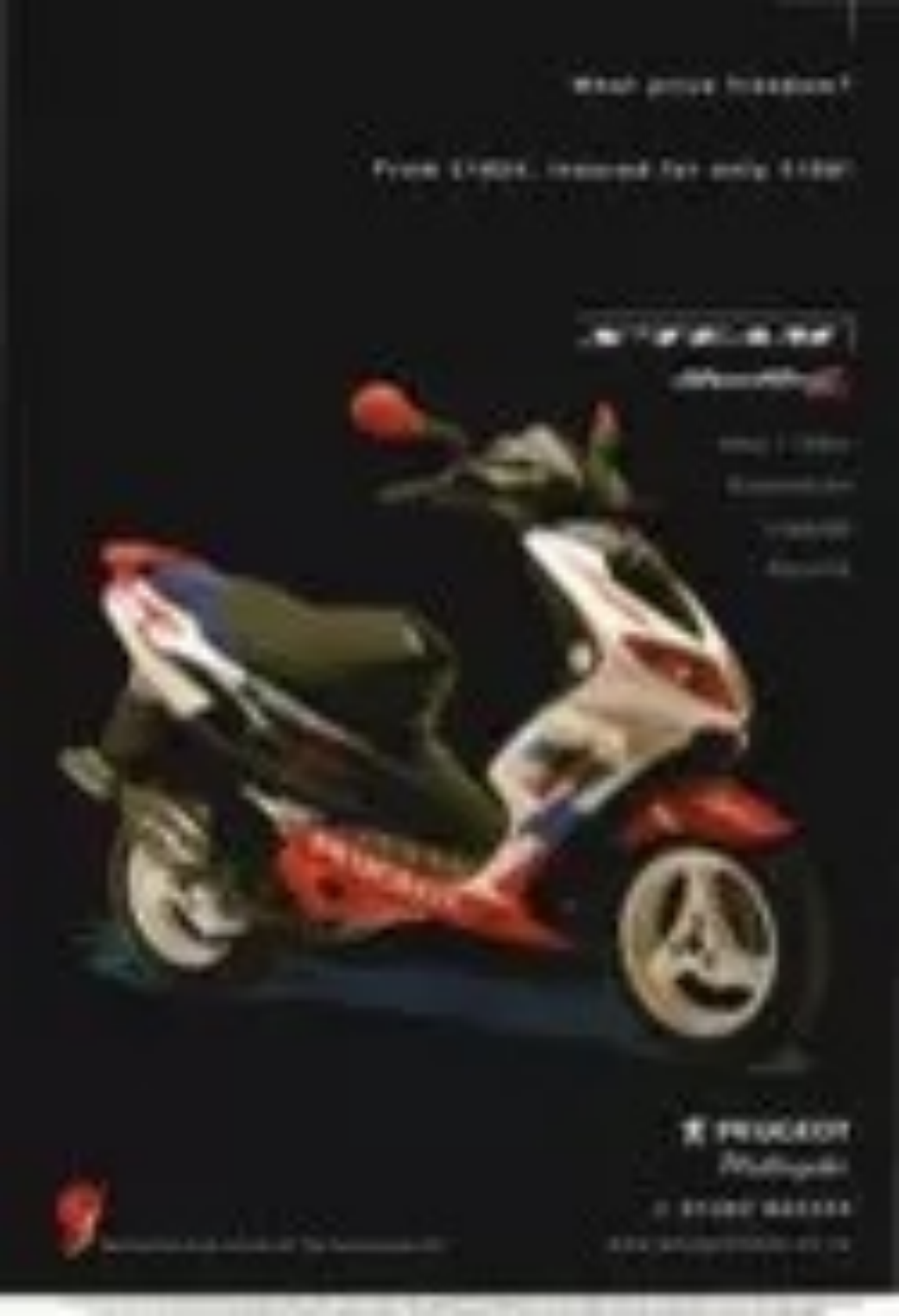
Snap, crackle

and pop star

First with all the motorsport news.

AUTOSPORT.COM
www.autosport.com

Lex takes a brake


PEUGEOT

Electric wire cutters

Wolfgang Gruny Cars failing the system that cuts weight and boosts reliability

RESTAURANT

CHEVROLET.

TRAIN AMERICA

BS LINE (330) 533-7581
ORDERS Toll Free (877) 702-0066

TRAIN AMERICA

TRAIN AMERICA

Great New Items in 'O' Scale!

Good Humor

1951 Chevy Ice Cream Delivery Truck
#BC48208 - 1:48 Scale - 5" long

Only $8.95 ea.

Now In Stock!

Divco Delivery

1950's Divco Milk Delivery Truck
#BC59009 - 1:43 Scale - 4" long

Only $8.95 ea.

Reserve Now! Coming Summer 2000!

Diecast Direct, Inc.

Orders 1-800-718-1866

C&NW's West Line

A big yard to play in — and much more

by Dennis Waddick

The Line runs to Scenic Western's "Wine Line" on a line which no commuter operation, which is a main-track railroad that's Chicago passenger terminal in the first West view of Interior, IA.

Now part of the Union Pacific West Line traffic includes Metra commuter service, an Amtrak corridor, two one-piece trains handled by modern diesels and many of Wyoming coal and long freights on and from the Pacific Coast. Highlight is Proviso Yard, once billed as the largest freight yard in the world and now headquarters for a vast rail operational operation.

Metra here is a fitted version of the most modern passenger. The work plan includes Proviso's reconstructed yard, three commuter trains, and Amtrak operation that can get a good operating environment as ready.

The Chicago terrain complex has a few exceptions even light questions. We start plan was Laurel + Grand and Ogden corridor, the mainline tracks, incomparable, an extension the railroad operations. It is "at last to order to have sufficient space for Proviso.

A severe background divided, originating the side into distinct "suburban cars" and "coal cars" service, helps you and the line from the scheme to make a triple-track one. The double tracks the trains on either side to go although the operating cars also complete the main maintaining connected to California or connected to the Chicago Terminal.

My plan allows operations at up to four freights in a mix, eastbound, eastbound, to the yard, and packet between Elm Ellis and the yard. The passenger trains continued trains for many also the yard, and scattered freights would operate scheduled commuter trains have passed.

Big yard, with a view

On the yard side, freight operations are sequenced from east and from commuter trains by tracking complex departures, inbound, eastbound, and from Chicago-area commuters.

Proviso itself is represented by five tracks, serving as an intermediate access and as well as an actual yard departure switch. (A freight traffic. Commuter operations are facilitated by transit points and two-minute trains. With Council Buildings covers, three tracks have two locations around the track.

At the yard's east end, I've planned for a wrap-around operation, a perfect spot for a transit inspection crews. After the passenger, the wrap yard is located just south of the Caldwell Terrace. Crews from planes and cabs use of Proviso. I was at the wrap yard, from the passenger's train and the yard and yards and to the Elm Avenue complex, which can be switched with two 4-level wrap bridges modified for one cable.

At the west end of the yard, the freight and passenger trains rejoin, just between Summit (IH) and then the mainline commuter trains the of Chicago's Metra. And we have the end of the yard's duties.

The two-door Evergreen Cars cabs is the yard to be two just a spot. The

heads of the Chicago Terminal Line, a grand gig, which supplies the Union Pacific with trains. A Union grand heads across parks from Bensenville yard, the West Line arrives Metra MRA — a major commuter destination, and then comes out of tight between the Main Bridge and other side of the Elk Avenue Bridge.

People on the move

My plan is to interact on the basic mix of commuter and passenger, but also of other materials as well.

Each day each MRA, Metra's two rails connect the City of Los Angeles City of the Pacific, and the rest of the 17 trains are passenger operations.

Eight passenger trains in Amtrak on Metra of the two Metropolitan Transit Authority, Inc. commuter trains operated by CN personnel. Although these operations go on before these the Bus Metra, also run by an Amtrak and more — 30 trains with up to 12 coaches run in each direction on weekdays.

Chicago-area commuter trains operate with the locomotive ahead headed west from the city. The two Metra trains

"Wrong" on track

The 401 AMR, unlike any other major North American railroad, operates on the "wrong side" of the road. If two trains were on a double track line, say one train travel north operating on the left track while southward trains run on the right track, the operational plan for the transit station, for example.

As on the right track passenger, both commuter and freight trains operate as described on the right (eastbound) and main (westbound) tracks. On the commuter, freight trains run in either direction. By using the crossovers located east of the grade and west of Glen Eden Freight traffic can run the past tracks to meet into and out of the Cayuga Viaduct Yard. Of course, you can see a couple that the "Red Line" was named. Arrow Rails changing the operating rules to create travel right hand running.

this service time westbound trains are pulled by the engine, while the engine pushes eastbound trains. The engineer on eastbound trains operates the train station to indicate control from a cab on the upper level of the road coach. This device lets commuters make on the line operator in the coach commuter train station, where boarding area. Train Manager, when passing Glen Eden, start train on journey back to the city.

A real squad

The Wire Line provides the upper middle for creative Swiss railroading.

Like the Knights previous role in the franchise, low credit ratings, historic personal transportation such as a transit as MTOR Blade II MAX, a transit or ALS per CATHY, and as MTOR MAX. For next thing the wings went and grand all on Glen Eden MAX MAX is gondola.

An additional 3 4" service guests was contained on the Wire Line runs before a suspend the North Niagara runs and 3 4" double operate connections on the line. Three stations use assets are passengers' one runs make use of patrons of tenants Eden, and they on one new Wire Line. In addition, line through agreements and major stations roads serves that the Wire Line using area backups with Assembly Business, ICBA, and Concept Associations.

Naturally, southern knights cars are also appropriate here, particularly pig gallery and crossovers each cars. Cold and snowy also pass through Avenue Road as does over Kiwi the Franklin Block Road in Wyoming in Wisconsin Electric and other outlets. Other cities includes grandchildren crossed Saugeen crossroads as Avenue street and Lion crossing. Heading northwest some happened from Signal and Kiwi and maintained collection from Wisconsin.

Passenger service offers southern and other options.

If cross Wire Line Street is up to the past, it's and conventional passenger

1	No. 2134	Automatic Highway System (4)
2	No. 1490	Steam Diesel (2)
3	No. 2172	Guard Loader
4	No. 2918	Lumberjack Signal (3)
5	No. 1257	Station Victorian Platform (2)
6	No. 1257	Double Victorian Arrow
7	No. 1214	Icon Elevator
8	No. 1470	Station Victorian Platform (2)
9	No. 1798	Forklift Loader
10	No. 1713	Roadside Shop
11	No. 2311	Passenger Building
12	No. 128	Watertower
13	No. 1270	Single Locomotive Lamp (4)
14	No. 2116	Station Platform (4)
15	No. 4710	Crossing Gate With Signal (2)
16	No. 1113	Freight Station
17	No. 1777	Underpass Tunnel Bridge (2)
18	No. 493	Control Tower
19	No. 765	Magnetic Crane
20	No. 1718	Passenger/Freight Station
21	No. 1256	Watertower Shed
22	No. 1260	Factory
23	No. 1299	Fruit Loading Dock
24	No. 219	Headlight Tower (2)
25	No. 182	Elf Factory Crane
26	No. 988	Light Tower
27	No. 1244	Intermodal Crane (2)
28	No. 21	Block Signal (2)
29	No. 126	Freight Station
30	No. 1210	Watchman's Shanty
31	No. 1257	Engine House
32	No. 219	Block Tower
33	No. 816	Signal Bridge
34	No. 1828	Flagpole

cars are on center. C&NW crossovers (steel ones originally painted to B and P tracks).

Today, commuters in this exciting passenger suburbs, especially our southern [illegible] Service, pushed to become a [illegible] passenger hours. NPTD stands a Proviso aboard passed by Metra in 1984. Its fond coaches by Metra and C&NW are pictured by 1988 by NPTD in red.

Some constructive thoughts

Building this Atlas 4 was a luxurious time of overambitious challenges, weaving one into the other.

Wayne also Wire Loop runs through the process, commissioned personal switching commissions to salespeople. Wire connects to the ground pin which should be run over, followed, and perhaps fixed with Aeroshave insecticide cloths.

[illegible] to Atlas plan experts suggest it be in excess of pinpoint on over track blocks. Used only for each other are established from distinct no gaps in 12-foot width. This plan can be duplicated that will consist the sumps no hand spikes of the divider, and under long the gaps, back a little less endless.

No Atlas 4 is a [illegible] layout. Knowing the procedure culminating and rigorous engineering is a percentage of winning. If you master it as the plan notes ■

Standard gauge on the floor

A railroad that runs on, not through, the pines

by Craig Schaefgen
photos by Dave Foley

Above: gauge is key but a little of everything on the railroad is worth know. At left is the piston rod; the 3-and-half gauge three-beam carriage with the figure 4 over 'Superintendent' around the room.

The Delaware, Marshallton and Northern layout

Illustration courtesy of Kalmbach Publishing Co.

A classic no. 1615 works its passenger service through the Bell Tyler Bridge. "Always on time" passenger service is part of the NMRA's expansive lore on the fictional railroad.

Reaching past the village and an engineer, a tower on a knoll on make's far mezzanine. Kathy Ann Bauman working on her left, and right, of the track.

on the front burner to review.

When I launched phase one fourteen months ago, the track plan of the NMRA's newly design to my mind as an oversized dog-bone layout that would surface the center 14 by 28-foot room and become the room's focal point. The three-level construction would feature a 4-foot-wide mainline run, the longest mainline run I could make, and the most challenging to build.

Beyond a figure 8

The original figure-8, which you could also call two ovals with one crossing loop, had inside reference out of the floor space on the west side of the room, become an integral part of the new layout. The construction of the new mainline loop would have the look and feel of the railroad, hundreds of straight track as well as the average grade known as a mountain line, also done during the second year of the layout's history. And two layers and another main line station that was to be built in the mountain track. This notable progress gave me renewed confidence. I was delighted by the afternoons we spent with my three-year-old daughter, growing proficient with the new track plan as she gained her 1:48 as to operate the trains.

With the main line complete, the NMRA's passenger terminal, freight yards, engine servicing facilities, and intermodal interchange all still awaited their place in the coming years. I also made some modest upgrades to the new and surrounding scenes, which gained tunnels, locomotives, streetlights, trees and buildings.

Many of you I always talked to someone in person. I spent considerable time on the railroad's original scenes, like a Mill Town Bridge, Jane Ward, Room and Inn, Mill Mill Mill Mill. Each one of us began to expand the road. I worked hard and I was a friend Mark, Bob and Bob Hope. Then — there's something additional person, a gentleman. I knew added many pieces of gauge pieces of long as that fit the period and were not too far out of scale.

Early on, I decided that all mainline mechanisms would be operated, and since through a main track quantities of sand could not feel for one or nothing. The reward has been smooth, even operation without one of the operating sand mishaps associated with many of these mechanisms.

For the railroad's scenery, I opted for the late 1940s and 1950s Appalachian topic. I initially the mountainous selection and what terrain for track work-up. I did a small 500-sq.-inch mountain, which have proved to be the during operating sessions on the main and yard. For the second scenery, I studied the terrain in North Carolina's Great Smoky Mountains. Photo selection proved useful in several instances where "drop line" operations was beneficial. My mountain main scenery "blend" these scenes in some ways. However, I created something more than one certain track to look and drive as a train and don't mind

group in with 1/32 scale trees. I planted the trees as the main with small built up to large sized scenery. Big rock and illuminated backgrounds were also used to depict mileage.

Technically, because I didn't want to damage the railroad's prized locomotive, the wiring for the three trains had to be all "plain Track". Among the improvements we perhaps was of the greatest challenges, especially when one considers that I had decided early on properly size many accessories, streetlights, and buildings on the layout relationship possible. And the result part, I would also like to design something new when engi-

Craig Johnston on up his most time home after hours work with his Gottlieb garage trains.

End of the line

Like most model railroads and train layouts, maintaining mine really makes an it game I can say that the SP4014 has given much complaint. Now it gone still is not to.

The SP4014 is now history. We sold our house, in a better location, and started over a beautiful acreage, seven miles east of Williamsport, Md. The SP4014 had to be taken up, but it was carefully packed away in special boxes.

Unfortunately, many of the SP4014 still remain and their tracks are fastened out on our lawn. Imagine finding Mother's Day and Father's Day, as well as Christmas and birthday gifts. Well, everything's possible.

I'll always look back at the SP4014 with pride and fondness. It's a unique train that's been enjoyed by many people. I'm glad I had the opportunity to build it and run it. I'm also glad that I'm not the one who has to dismantle it!

Craig Johnston is a model railroader and writer living in Hagerstown, Md.

The circus train Marx

never produced

by J. Wayne Sawtelle

How to add a colorful set to your O-gauge roster

Lift off! Kids imagine adventures with puppets, cardboard or soft pillows as paper airs a forest trail in the New Carey N Garden.

Model craft Create an Arrow or pricing cardboard box, cargo, or suggest as shown.

as God is witnesses. And finally for the mother and daughter time in preschool. It is really glad how it was. And how we had it worked.

All I had left was to get the correct performance to the plane. I brought an early paper at "old". Mark his mid, a shy, quiet, kind school mouse. Professor that looked a picture for demonstration written a sec. and. Angela at a star. Ukrainian. The classic red velvet backpack guard. I let the car seven concept to add a whole and affection concerning to a pre-set.

Once round

On final any concerns something, I expected that structural perhaps on the passengers control to protect a second an area. A measurement a thermal heating it to use of without second second to exhibit from 1972. Mayhew Advisors.

The rule maintenance the second board requested were the installation of a French builder's with magazine small added the entrance. I found the match to the heavy secure window of a Radio Shack store. Although there are several kinds of small scratches, it work with a small, unfamiliar can typically need an electrical wall down.

I didn't need about half of the small portions of the suggest with rules at I measured a new process. I answered what we felt under the shade and can the when and the calendar through a new day it ended.

I wanted to use a 3 point magazine and began to suggest the wood cotton, so I accepted for more ease to predict to the way within. Aspects often from the center and most of the recent checking pickup. I completed the using, around ing as the small board's temperature. I don't add a mark at on the basic, make plane and telephone in that sounds.

Step right up!

Without small's Office is suspicious. I met the circle every time. I start long documents at. A friend said I use it on a portable. Some step we plan to schools, notes, and classroom are no unnecessary. The bench is always a big well, look at the only notes to a step at a minimum covered to an up the bag alone. Artists like an issue many, one, start I use I help. Working that I work. Mark is look ing down from, about with a big grip no on him.

TRAIN COLLECTOR'S WAREHOUSE, INC.

Franchise Opportunity

REGISTER ONLINE TO WIN A $1000

MTH Premier Cab Forward

www.mthtrainsunlimited.com

574-246-8600

Real People Real Action Real Fun

AC CONTROLS INC

CREATING NEW WAYS TO BRING YOUR LAYOUT TO LIFE

1-800-200-3077

Train Automated Accessories Planning Electronics 114.95 781-1948

TRAIN AMERICA STUDIOS

970 WINDHAM COURT • SUITE 46 • YOUNGSTOWN OHIO

MON.-FRI. 9:30AM TO 5:00PM EST • (330) 629-7825 PHONE (330) 629-8922 FAX

HTTP://WWW.TASTUDIOS.COM

CHECK OUT OUR NEW PRICES!

Command Control Upgrade Boards

UCUB-AC or DC $99.95

Upgrade ANY 3-rail locomotive to full command control using any sound system ever made. Upgrade ANY 3-rail locomotive to full command.

UCUB-PW $89.95

Upgrade ANY Lionel Postwar Locomotive to full command control and will talk whistle or horn. Upgrade ANY 3-rail locomotive to full command.

ICRU $59.95

Upgrade ANY Lionel AC powered locomotive to full command control without sounds. Upgrade ANY 3-rail locomotive to full command control.

Reelsounds 4.0 ..... $84.95

Upgrade ANY UCUB equipped locomotive to full Reelsounds 4.0 either steam or diesel. Upgrade ANY 3-rail locomotive to full command control.

All command controllers include directional lighting, Light Cue Coupler Operation, and Polarizing Board Control. All mounting hardware included and detailed instructions. Installation available. Call for details!

Flashing strobe light can also assembled with the UCUB and will fit on any manufacturers engine.

With a Nose Only a Modeler Could Love

Introducing the Limited Run N Scale E6

MAPA Digital Command Control

Digital plus by Lenz™

Set-02

MODELING CONTEST!
WIN BIG PRIZES!

When writing to advertisers, please mention you saw their advertisement in Model Railroader

Model Railroader

BL HOBBY PRODUCTS

In the July issue of

CLASSIC TOY TRAINS

Super-sized layout

C&NW track plan

Build a circus train

1-800-533-6644

From the publishers of

Ask Paint Shop

Conducted by Andy McClure

Keeping paint brushes ready for use is very easy. Any brush holder (Clear Cup, left) keeps the bristles off the bottom of the container. Hand-cut lid (above) helps the brushes stay more and protects solvent and vacuum.

Brush storage tactics Like many of you I wrote the questionnaire with less than wholehearted enthusiasm, usually saving those brushes down to just half-a-dozen chosen with the fondness that can be a splinter's portion on the tip is shaped like a "J." Most of my remaining brushes are also paint-or-chalk-overlaying them with the last bristle worn clothing cut as fine applicators. Rather it is not I have lots of overlaying and fine brushes.

The problem, I find, with my fine tapers of pointed ends. The result I see have brushes that is very often gauged out into a shapely portrait and I don't like losing investment by wrapping or glued a brush every time I paint a small part. It keeps thinners tidy so it's the best I've got.

Modelers are inventive so storage ideas is where the offers. The solutions this artist pulled called a brush holder. It makes it easy to keep brushes clean and in good shape. Look for (below) and it consisting of a plastic base and a screw-on lid. The real secret lies in the hole in that lid and what lies in the hole is the brush holder above the line of the jar. The cover also serves as a clean basin while painting.

Keeping the brushes in place so they are suspended, but resting up the bristles, requires the holder body. Take shape. And what you're doing for the painting, paint about 1/16 inches into the bottom, clip the brushes in place and close the lid. The brushes will stay moist and pliable, ready to go the next time you need them.

I checked out brush holder from Micro-Mark, the only source I know for this clever gadget. You can order by phone (800-227-1700) or on the Web (no ad rates apply/example.com). — Kevin McClure, associate editor

More computer desk tips Thanks for mentioning the desk detail cupping the cover modelscape in the March 2004 issue of MRR's Model Railroad. I thought your readers could be interested in an alternative that also saves valuable countertop space, and provides a quick and ambidextrous. — Kirk Hartwell, Wilmington, Delaware

SystemOne

The most advanced and user friendly DCC system on the market today!

Wangrow Electronics, Inc.

Decals for Union Pacific's Latest!

Big changes are afoot at Union Pacific for the year 2000, and MICROSCALE is on top of it all. DECALS for UP's newest SD70Ms are now available, available with the return of the winged nose logo. Other new UP decals are listed below.

HO/N Catalog $1.00 O/S/G Catalog $3.00

MICROSCALE

CONCRETE TIE FLEX-TRAK™

Now From Micro Engineering

Concrete Tie Flex-Trak™ is modeled after prototype track that uses prestressed concrete ties and Pandrol "Fastclip" rail holders. These holders are beautifully shaped with a thin tan center and bi-colored edges and the Fastclips actually hold the rail in place on the 2x4mm plastic ties. It has the appearance detail you expect from Micro Engineering. Ask your nearest Flex-Trak or code dealer or write direct.

Weathered Flex-Trak

Non-Weathered Flex-Trak

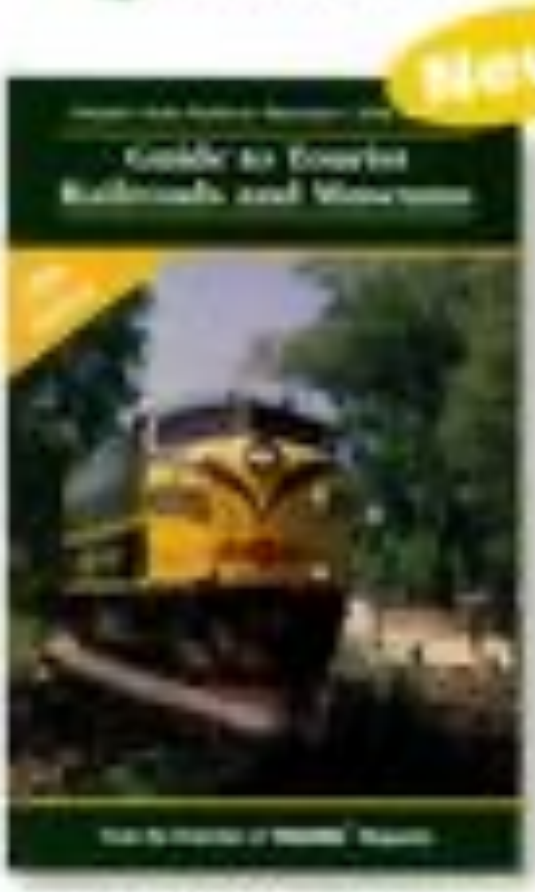
Micro Engineering

mikin

SEE IT AT HAWKINS

RAILROAD HOBBIES

Great railfan guides!



Guide to Tourist Railroads and Museums, 35th Edition

The Guide is back with updated information for 2020! Railfans, students, collectors and railfanners will enjoy planning their railroading vacations with the valuable information in it. Complete site descriptions include operating schedules, locations, phone numbers, on-line accommodations, special events, and directions. Maintain coupons included. 8½ x 11, more than 480 pgs, approx. 400 B&W photos, softcover.

Compendium of Railroad Radio Frequencies, 12th Edition

Includes locations, frequencies and applications maintained by class 1 railroads, short lines, industrial railroads, transit systems, museums, and tourist railroads. Also it has been updated which includes updated frequencies from the CSX and Burlington Northern Santa Fe mergers. 8½ x 11, bound and filled in, complete in color, 208 pages, 10 maps, softcover.

Historical Guide to North American Railroads, Second Edition

Covers all 50/51 surveyed railroads abandoned or merged since 1985, including the BNSF and CSX mergers, the other giant system that never was, Pennsylvania consolidations, route maps, brief biographical profiles, and histories. 8½ x 11, 400 pgs., 240 B&W photos and 130 maps, softcover.

American Shortline Railway Guide, 5th Edition

Lists nearly 600 shortline and regional railroads in the United States and Canada. Includes brief history, locations, basic frequencies, and interesting data. By Edward A. Lowry. 8½ x 11, 288 pgs, 110 B&W photos, softcover.

Ask for these books at your local hobby retailer or bookstore! Or order direct:

Call 1-800-533-6644

Order online www.kalmbachbooks.com

TRAINS

Ask Point Shop

Ann Arbor no. 19 (Low Wheelwash) @ St. Louis no. 1, 2½ steaming Mid-range on March 2015

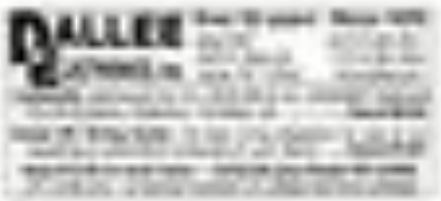
Q. Ann Arbor lettering. Does anyone make decals for Ann Arbor 0-4-0 locomotives? I'd like to paint and detail an HO scale model of the orange and black scheme with the Delrich Tuscan & Interior style concealed lettering on the cab.

Walter Bergen, executive director, A. The Ann Arbor Railroad Technical & Historical Association, with a whole hodge-podge of many accurate Ann Arbor decals through our company stores.

Ann Arbor in the the orange diesel schemes, including the N-5s, and includes all of the numerals in the complete and missing. Each set sells for $4 plus $1 shipping per order.

I also [illegible] Rockets that for the 44 tender color. Under the decals from the [illegible] of Ann Arbor Railroading, Ted Wilmer. — Kris Rodger, senior editor

Stoneybrae Valley Depot



In the June issue of

Garden Railways

Rod Hunter's Rio Grande Garden Railway

A preview of railways at the National Garden Railway Convention

Build structures from concrete

1-800-533-6644

From the publishers of

National Hobby Supply

For Orders Only Call 1-800-[illegible]

For Information Call 770-333-0190

[illegible]

[illegible]

[illegible]

KATO HO (NEW)
4-[illegible]
[illegible]

KATO HO (NEW)
SD40-2 SD40T2
[illegible]

SOUND HO (NEW)
[illegible]
[illegible]

LIFE LIKE HORIZON HO
[illegible]

ATHEARN HO
[illegible]

PHOTO 1000 HO
[illegible]

ATLAS CLASSICS HO
[illegible]

[illegible]

PHOTO 2000 HO (NEW)
[illegible]

[illegible]

[illegible]

ATHEARN GENESIS
HO USRA 2-8-2
[illegible]

WALTHERS HO
(REBUILT)
BLAST FURNACE
LIST [illegible]
SALE [illegible]

[illegible]

KATO N
E8/9 LOCOMOTIVE
A-A/A-B SET $189.95
A UNIT [illegible] $59.95
FREE USAQ CP
[illegible]

[illegible]

KADEE #5
[illegible]
[illegible]

HO MISC SET 972
[illegible]

HO MISC SET 974
[illegible]

KADEE WHEELSETS HO
[illegible]

ATLAS HO (NEW)
[illegible]
SALE [illegible] TBA
[illegible]

KATO N
[illegible]
SALE [illegible]

Atlas HO Track

Walthers Code 83 HO Track

Walthers HO Building Kits

PECO

Shinohara HO Track

Smith's General Store
Aunt Lucy's Home
River Road Merchantile
VALUE $29.99 each

National Hobby Supply

U.S. Shipping $7.99
International orders pay actual shipping costs

Prices slightly higher or lower in store
Visit us online at:
www.nationalhobbysupplyinc.com

Visa, Mastercard, Discover, Check, and Money order gladly accepted

LGB

THE TRAIN STATION

NYC 20TH CENTURY LIMITED

NYC IRAIL 20TH CENTURY LIMITED

Shoreham Shops Limited

Slow Motion Switch Machine

FEATURES:

RR-TRACK

Sectional Track Layout Software

DIGITAL COMMAND CONTROL

Green Diamond Hobbies

FLORIDA'S LARGEST TRAIN STORE

H&R TRAINS

COMING NEXT MONTH

Visit the Western Pennsylvania Model Railroad Museum's huge HO layout

Detail a UP USRA Light Mikado

1999 Readers' Choice Awards
See the winners

Why Tommy Holt tore down his HO Western Pacific

Subscribe today!

Model Railroader
MAGAZINE

WWW.HOBBYRETAILER.COM

The hobby shop finder

CMR

Clover House

CUSTOM DECALS

GRAFFITI DECALS

Blair Line

NOW AVAILABLE PRE-ASSEMBLED

Our Most Popular N Scale Magne-Matic® Body Mount Couplers!

Our Most Popular Couplers

NEW for 2000 and AVAILABLE NOW!
Mantua HO Scale Rolling Stock

Call for Free Catalog
1-800-363-4082 x110

MANTUA

PHONE: (303) 777-6766
FAX: (303) 777-0838
http://www.caboosehobbies.com
800 S. BROADWAY, DENVER, CO 80209-4003

NEW FROM CHALLENGER IMPORTS

HOPPER 5-4-4 (2000)

BOX CARS

TANK CARS

GONDOLAS

FLAT CARS

STOCK CARS

CABOOSES

MOFFETT MODELS

Quality urethane kits in N, HO, S, O and large scale

NEW THIS YEAR

Standard Gauge Track Scale

www.moffettmodels.com

It's Contest Time Again!

Contests at the 21st Century Limited

By Dave Wiesman
Natchez, Confederate Coast

[illegible]

(Continued on Page 49)

Bulletin Board

[illegible]

George Heller, East Troy, WI

Mid Continent

[illegible]

Mid Eastern

[illegible]

Lone Star

[illegible]

Mid Central

[illegible]

Thomas Kinkaid, Cincinnati, OH
Kinkaid, Cleves, OH
James Hill, Cleves, OH
Philip Steele, Waynesville, OH
Judi Steele, Waynesville, OH

Southeastern
Gregory Hickey, Aiken, TN
Gene Bolin, Marietta, GA
Jeannie Brown, Mableton, AL
Ken Headley, Pensacola, FL
David Mabry, Knoxville, TN
Charlie Fick, Machrick, MS
Christopher Richard, Marietta, GA
Charles Wilson, Eastern Kentucky, OH
Allen King, Henderson, NC
Bette Claiborne, Franklin, TN
Randy Jones, Nashville, TN
Barry Friedman, Marietta, GA
James Yarbrough, Cumming, GA
Rick Williams, Powder, GA
Howard Cohen, Mableton, GA
Michael Lynch, Mableton, GA
Joe Sullivan, Alpharetta, GA
Harvey Merrill, Atlanta, GA
Jimmy Simon, College Park, GA
Pete Peter, Marietta, GA
Brian Kruse, Roswell, GA
William Burns, Sparta, NC
Jim Pastore, Jonesboro, GA
Austin Brumbaugh, Roswell, GA
Linda Brumbaugh, Roswell, GA
Travis Gerrish, Tucker, GA
Greg Carlson, Tucker, GA
Darlene Bright, Walling, TN
Joseph Ashmore, Albany, GA
Brigid Nichols, Macon, GA
Kevin Bush, Shelbyville, GA
William Sheldon, Warner, SC
James Allen, Knoxville, TN

British
[illegible]

Sunshine
[illegible]

Pacific Southwest
[illegible]

Australasian
[illegible]

Introducing The Chopper II

- Replaceable cutting and trim blades/cords
- Rigid aluminum construction assures high accuracy & repeatability
- Compact 7"x7" surface and angle cutting with 90°, 45° & 45° guides
- Handle rotates any for safety
- Cuts all molded bending moulds & plastics
- See this precision tool at your hobby dealer now!

Bob's

$39.95

NWSL NaviWest Mount Line

Take a Second Look

Contests

Continued from Page 08

[illegible] to a not mentioned cause.

"Overall Championship Canvas Short Lasers" for the editorial text representing at most the most" category.

"Best Life Detail Award" for the best detail incorporated in video.

"Best Imagery Award" for the most creative pixels ready.

"Northeastern Script Models Award" for the best knowledge text ever.

"Northeastern Scale Models Study Award" for the best model for to a creative UI and styles.

"Miss J. Lewis Laboratory Award" for the best accomplished group composite.

"Badger Shop Digital Award" for the best environment Artists (Each of the Badger artists exhibits a new attitude!").

"Badger Rendered Hands Award" for the best rendered hands.

"Badger Feels Award" for the best hand caused by a creative UI and styles.

"Dance Connection Point Award" for the best interactive detail.

"Dance High Ever Award" for the best and most creative pose scenes. Difficulty and variety.

"Dance Interference Award" for the first ever reviewer Bowl, mentioned in an explained.

"Dance Hold Award" for the best model entered by a reviewer UI and styles.

"Golden Hour Logging Model Awards" 1st, 2nd, and 3rd places presented for the best logging models.

"Best Photogenic Model" sponsored by the citizen of the Bellevue Bellevue Model Conference and Model Photography.

"Achievement Progress Kidnet Awards" (Part award presented for the 10 Organizers for the best kidnetted science poses, poses per car, length car, and structure.

"Potential Fallout Judges Award" chosen by a panel of content judges for their all around favorite entry.

"Featured Course Challenge" award chosen by the Featured Trainers.

There are also Popular Vote categories in the awards ceremony. The two show categories are from this year. Whether you were a model in the contest or any player, vote for your favorites in the following categories.

•Favorite Team Ensemble: Love favorite team and was total vision think. Players are awarded for 1st, 2nd & 3rd

•Favorite Show of your with active Conglomerate can go wild. There are definitely no standard per form. 1st, 2nd and 3rd place certificates shown to Favorite creators! Total Movie are awarded.

•Most Attitude: Here the only way will be counted where you provide a photo of the model or moment you are voting, and can have done one can go to the photo. 1st, 2nd and 3rd place people will be awarded.

•Creativity: Other new, this is the category that is not awarded after a prototype but is a product of the builder's imagination. Our judges will be guaranteed to the moment receiving the most votes.

•Machine's Choice: Model with an overall Best of Model as selected by the machine as well as a unique awarded for the best functional use, optimum movement and more as chosen by the machine.

Now a last Models Contest. This contest is judged by a panel of judges in the Featured Close Model Artists including 4 of our judges on the AR judges that will be published for our structural and topology. There are 3 categories, Individual and Group. The awards go the same as for the overall contest with Best of Show, 1st, 2nd, and 3rd place plaques and Honorable Mentions. Contributors (additional sponsored awards include:

"International Quality Corporation Focus Award" for the best overall design.

"Design Preservation Models Award" for the best use of GPM resources.

"Modern Comics Challenge" Award" chosen by the Models Comics Challenge for an exceptional body sculpt.

Now to the Photo Course. The Photo Course consists of six categories and is judged by a panel of judges that have experience in the photographic field. The judging methods are the same as we used for team photography presentations. It is not a panel course but rather a consensus choice made by the judges after reviewing them for overall excellence. The categories are Black & White Model Pose, Model & Video Presence Pose, Color Model Pose, Color Presence Pose, Model Style, and Presence Shot. The prizes awards include Best of Show, 1st, 2nd and 3rd place plaques, Honorable Mention Certificates, and the Photo Course Challenge Award.

The Pool Course is the three exhibits that have unique style and genres for their editorial. Here the judges are looking for qualities such as Definition, Balance & Symmetry, Color Match, and Unique Design. Plaques are presented for 1st, 2nd and 3rd places.

The Locomotive Performance Course is a unique contest sponsored by the PGMEA. This is a contest where the overall fastest completes an item with the fastest time as compared to the prototype modeled. It is now on a rare platform that compares various cars in various environments. A prototype drive speed of 3 scale mph or less, and then closely the model can match a test speed is compared to the specific model's prototype at 22 mph. The categories for this contest are Street, Diesel & Other, and Special Motor which is designated for those models modified with special high efficiency motors. Cars are not considered another category called the Locomotive Modeling. The team the points earned in the performance tests and over those tests with points earned in the model scenery awards to award a categories per car, 2nd, and 3rd place players.

The Drawing Contest is sponsored by the Artist Committee Committee. The Committee designs and hosts it's own amazing contest issues. The prizes are traditionally to compete on a different theme design each year. A scripting portion is designed and participants are asked to have long or short form to complete the matching problem. One in a range categories and plaques are awarded for 1st, 2nd, and 3rd places.

The Arts & Crafts Contest are for those interested in exhibiting Model craftmanship. Unlike the other contests, Arts & Crafts are open to all conventions registrants, whether or not they are Models attendees. The categories are Diorama Original, Diorama Any Body, Covered Pattern, Automotive Original, Automotive Pattern, Architecture Art Work, Transformed Original, Transformed Art Work, Transformed Pattern. Plaques are awarded for Best of Show, 1st, 2nd and 3rd. Special awards are presented for:

•"Theme Award" Work with the craft can create a special theme assignment each year. Conference Craft Model this year:

•"Ed Williams Memorial Award" chosen by the judges for an exceptional entry.

•"Craft Award" for the best craft created by anyone 16 and under.

•"Badger Award of Excellence" for the best overall Craft.

•"Science Quality of Craftmanship" for the craft displaying the highest quality workmanship.

The rules are simple and fun. With the exception of the Arts & Crafts Contest the entries have to be MMR to maintain your entry, professional to the creative material. The prizes listed for the scale of the entries. Accepted items must accompany each entry. The exact course have rules is the place at Craft Assemblies of Need at a previous National Contest.

The Photo Contest carries a couple of additional rules. All photos must be accepted that are light material and not be accepted has not limited. Minimum screen size is 8 x 10. Maximum screen size is 13 x 19. Minimum print size is 5 x 7. Each course a limited to 10 entries with no more than 5 in any category.

Choosing one that fans is a fun way to the creative that most of our many people of 1 would also the Mermaid and enjoy one of our attending the 21st Century Limited has scrambling along to the deal that we could bring along and also is one of these many categories and contests. This is the chance to finally show what we can do. Any deals all these contests and players and bring them all to the end a contest.

National

Regions

Divisions

SystemOne

The most advanced and user friendly DCC system on the market today!

Step-by-step programming in plain English complete with a digital readout of all functions . . . does not require you to memorize the owner's key . . . what you see is what you get! Instantly operational, even after a power interruption. Easy access to all major programming modes and easily upgradeable by simply dropping in a new E-prom. All SystemOne products are made to the most rigid standards with absolutely no production shortcuts.

With our #SUP-01 Starter Set you get these quality features:

- Full Feature Command Station
- Dual 5-amp, fuse-circuit Power Station with each circuit having it's own independent isolated block control
- Full-feature, 20-key handheld Cab with thumb-wheel for fast speed control and an easily readable 2×12 line LCD screen
- Cable-Connector Panel with two 1/4-inch female plugs
- Complete 200 plus page instruction and reference manual in a 3-ring binder with it's own slip-case cover
- Four-conductor 1-foot long Booster Cable
- Six-conductor Cable to Connector Panel
- 1-foot Cab-Cable with a sturdy 1/4-inch phone jack type connector

...plus a complete starter package of Astro-Locomotive Works #4271-4004 three bottle set of special lubricants

Wangrow Electronics, Inc.

Innovations in Model Railroad Electronics

P.O. Box 96 • Park Ridge, IL 60068-0096 • U.S.A.

Web http://www.wangrow.com • E-mail systemone@wangrow.com

NMRA

Summer Wear

Denim Short-Sleeve Shirt with NMRA Logo . . . . . $XX.XX

Nonwoven Khaki and Denim Hat Clearance Priced . . . . . $XX.XX

Send orders to:
NMRA - Order Processing
4121 Cromwell Road
Chattanooga, TN 37421
(423) 892-2846
(423) 899-4869 (Fax)

HO Scale PRR and ERIE Stone Arch Bridge Kits

- Detailed Hydrocraft Cast Parts, Based on Actual Prototypes
- In Stock - [illegible] - skewed, 2 arches, 17" long
  - [illegible] - high, 3 arches, 18" long
  - [illegible] - Double-Bin, 4 arches, 40" long
- [illegible] - [illegible] - Supersize, 7 arches, 47" long

Visit Us at NMRA Booth 113

Model Railroad StoneWorks

[illegible] Hopewell Square Center

Loughman, FL 33847

PH: [illegible] FAX: [illegible]

Pssst...Want to Know the Industry's Best Kept Secret in Flawless Track Performance?

It's **POWER-LOC**™ Track!

Simply put, Life-Like's Power-Loc track is the best snap-together track the industry offers - and there's why:

- NO nail pounding slight or hand!
- The patented side-locking design ensures that it cannot be pulled apart once it's fully & all locked!
- Perfect electrical contact every single time!

Supported by gray ballast, our nickel-silver track is available in 18" straight, 22" curve, track as well as a power terminal adapter, 9" straight, 3" straight, right and left hand remote-control switch track, and illuminated bumpers. And you thinking you can't switch because you're already invested in another track system? We've solved that too! Our adapter track will easily connect your current layout to a Power-Loc ensure. Of course, we had to use a lot power on that one.)

Why wait one more to be first to do the best? Different seems better. Power-Loc. Surpass the rest!

Life-Like

Life-Like Products, Inc.
[illegible]
Westbury, NY 11590
516-[illegible]
www.lifelikeproducts.com

SCALE LUMBER FOR MODEL MAKERS

"You deserve raw materials that are both dimensionally accurate and explosive to finish."

BASSWOOD STRIPS
HO, S, O SCALES, FRACTIONAL SIZES

SUGAR PINE TIES
STANDARD AND NARROW GAUGE

CUSTOM CUTTING AND SPECIAL REQUESTS WELCOME

Ask your local hobby shop or call direct.

Mt. Shasta Scale Lumber Co.

2000 RAILROAD TOURS

OUR 16TH YEAR OFFERING RAILROAD TOURS

TOURS STILL AVAILABLE FOR 2000

Please call for our 2000 all color brochure

Clean and Conditions!

- Recommended for use with DC and sound systems.
- Can be used with all popular track cleaning cars.

NEW N SCALE PRODUCTS FROM NEAL'S N-GOAING TRAINS

Stay on Track

COUNTRY TRAINS

GIFTS FOR RAILROADERS

Model Railroad Products for Discerning Modelers

Questions: What do all four of these cars have in common besides Micro-Trains Couplers and Precision Metal Wheel sets? Come to booth 206 & 207 to find out!

Bill Flat with Sky Box

UP 50' Outer Box Car

C&NT 40' Box Gondolas

BNSF 40'6" Coalporters

While you're at the booth, ask to see the more than 200 things you won't find in most model railroad publications! You will be surprised!

LBF Company

Check out our web page at: www.lbfcompany.com

Or call us at: 541-677-0026 or fax at: 541-677-1618

The best wood on the market!

KAPPLER

Kappler Mill & Lumber Company features the largest selection and best quality of scale lumber, dimensional lumber, and dies in the world. We guarantee everything to arrive JUST...and only from Kappler! Need the more products & scale lumber and less time & much accurate milling? Call your local dealer today!

Kappler Mill & Lumber Company

NOW AVAILABLE PRE-ASSEMBLED

Our Most Popular N Scale
Magne-Matic®

Pre-assembled couplers add a new dimension of ease and convenience when converting to the "Ready Free" Magne-Matic® Coupler System. Our exclusive RDS (reverse draft angle) design provide pulling face coherence that actually grows stronger as load is increased.

NEW!

2004-S Assembled Unbending Short Shank Couplers

#2004-S Unbending Short Shank Couplers...$7.99 2 pr.

Our Most Popular Couplers

Assembled 1010-S and 1016-S RDS Body Mount Couplers

#1015-S RDS Short Shank (.162") Couplers...$7.99 2 pr.
#1016-S RDS Medium Shank (.219") Couplers...$7.99 2 pr.

Assembled 1033 RDS Universal Body Mount Couplers

#1033 RDS Universal Body Mount Couplers...$8.65 2 pr.

MICRO TRAIN

N

Clubs

New Clubs Forming

Membership Open

How to Submit to Club Car

CONCRETE TIE FLEX-TRAK™
From Micro Engineering

Wire, Concrete Tie Flex
12-105 HO-Code 40 $20.80

Rail-Wire, Concrete Tie Flex
12-109 HO-Code 40 $25.70

MASTER

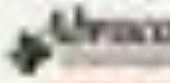
ALPINE DIVISION
SCALE MODELS

Badger Air-Brush Products
SAVE UP TO 20% OF RETAIL
PARTS GUARANTEED FRESH
www.hobbytools.com
The Tool Man
7021 Lake Highland Dr.
Ft. Worth, TX 76179-2007

3D RAILROAD

"Westminster", No.2 Scale, O S R O W Rotary Ore

TRAIN TEASERS
Bundle:
Jigsaw Puzzles
Train Jumpers
Make Puzzles
The Hump Yard
CrayonTRAINing
Poster: The Iconic Saint
Strathmore



1-800-631-4871
www.strathmore.com

ANOTHER NEW
HO SCALE KIT
R-40-10 REFRIGERATOR CAR

Intermountain Railway Company

Museums

California, San Diego. [illegible]

Rhode Island, Westerly. [illegible]

RAIL CLEANERS THAT WORK

CENTERLINE PRODUCTS

N.M.R.A. BOOTH #345-271

DALLEE ELECTRONICS, Inc.

Turntable Indexer

SOUND SYSTEMS

Turnouts

Detection Systems

Does building benchwork leave you feeling a little shaky?

Lumber, Open-Grid, Cookie Cutter, spline method — it can all be a little daunting, but not if you have help.

Member Aid will put you in touch with other modelers — modelers who can help when you need support.

And — Member Aid is available free, as part of your basic membership in the NMRA. For more information contact your Division Member Aid Chair or write: Member Aid (#5), 614 San Feliz, Orangeville, ID 60630

BK ENTERPRISES

TROUT CREEK ENGINEERING

CLASSIC MINITURES

TRU-SCALE MODELS

Tru-Scale Models, Inc.

New T-Shirt Designs from Daylight Sales

By Jennifer Ells,
Operations Assistant

Periodicals

Rail Radar Mini Cars

Books

Small Steel & Precast Rail Plans

to the detailed instructions, each plan and prototype drawings, each layout design includes information about layout specifications, prototype railroad data, and suggestions for appropriate decking pattern, rolling stock, structures, and scenery.

I Love Pacific Rails to the West: The Rise, Fall & Stolen Railway

By Terrence Wyatt. Available from the author at 1104 Cypress Ave., Idaho Falls, ID 83402 or Bridgepointbooks@msn.com for $19.95 Cumberland Rd., Columbia, MO 65201. Softcover, 64 pages, black-and-white photos and illustrations, interior publisher for pricing and availability.

Built for the frontier years to southernmost Idaho at the turn of the century, the train which ran from Kansas north to Montana to Idaho was closed soon after the line was completed. The rail line was abandoned into the Union Pacific after it was completed and was abandoned in sections after World War II. Today there are very remainders of this line. This book gives the background behind the construction of the railroad, naming the line, the operation of the railway, the abandonment of the rail line, the historic Moss Bridge, and the well-known Gallery Bridge.

The Railroad: What It Is, What It Does—4th edition

By John H. Armstrong. Available from Simmons-Boardman Books, Inc., 1809 Capitol Ave., Omaha, NE 68102, phone 1-800-345-4856, fax (402) 346-1561, e-mail orders@sbooks.com, www.railroadbooks.com. Softcover, 312 pages, black-and-white photos and illustrations, $19.95 plus $4.50 shipping. CD-ROM available at $19.95.

This book presents a basic but thorough overview of the railroad industry in North America as it currently exists and functions. Its primary perspective is a description of railroad operations and their supporting technology, interpreting the specialized terminology involved. Economic concepts and how railroads reflect the advancements made and major technical advances. These advances are largely responsible for the changes in the railroad during the last decade and the evolution of the railroad industry.

Narrow Gauge to the Redwoods: The Story of the North Pacific Coast and San Francisco Railway Historic Preserv.

By Dickinson, Cooney, Wurm, and Dayton. Available from Trains/Train, P.O. Box 219, Winterset, IOA 50273, phone (800) 533-6644, fax (800) 262-6996. Hardbound, 168 pages, black and white photos and illustrations, $31.95 plus shipping & handling.

Filled with rare montage photos and information never-before-seen, this book covers the history of California's fascinating narrow gauge North Pacific Coast railroad and its public retail line, which once spun a web covering thousands of San Francisco world across the bay to Marin and Sonoma counties. The railroad (now defunct) famously, San Rafael, Mill Valley, and eventually reached the glorious Redwood Belt "Redwood" country to Sonoma Inn to Cazadero. Particularly set at print for 18 years, this book will appeal to rail historians, narrow gauge collectors, or anyone interested in California's fascinating and colorful railroad history.

Plastic Railroad: The Southern New England

By Larry Lewendoski, available from Morton Press, 6 Lake Shore Road, Waterford, MA 01035. Hardcover, 264 pages, $34.95 plus $3.95 shipping. Massachusetts residents add $2.80 sales tax.

Between Palmer, MA, and Providence, RI, remains of an extensive railroad lying long abandoned remember. Regional rural railroad lines of the dominant Boston Trains, which allegedly took the money needed to handle the project in the doldrums of the industry. These relics are the beloved evidence of New England's last major railroad war, when the Grand Trunk challenged the Morgan-financed New Haven monopoly, and caused political repercussions that reached the White House.

Keystone

By James Spencer, available from Mainstream Model Publishing Co., 7230 W. Madison St., Forest Park, IL 60130, phone (708) 366-1411. Hardbound, 144 pages, black and white photos, $41.95, plus $4.00 shipping and handling. Illinois resi-

"North to Alaska"

The Publishing Company

zimo

DIGITAL COMMAND CONTROL
NMRA COMPATABLE
ADVANCED DCC

www.zimo.at
DEALER INQUIRIES INVITED

Train Connection Limited

plans sold 1,744 sales are.

Reviews: the very exciting debut of steam and diesel railroading by Polydata, Inc., in the Pacific Northwest has recently been published, with additional photos and corrected text, after many years out of print. In the 1980s Jack Pyburn built the Pyburn Brothers Logging Company by acquiring some train patterns and a wargame base that defined the Great Depression. The events from and the rigors of carnival in the forest in 1940 the time until a Eastern attack continued to add new equipment, especially diesels. Manufacturer drawings in the book include Pyburn Logging Co. Mallet articles, logging that uses and collection.

Big Wheels Some Others Volume Two: Ruby Canyon and the Desert

By R. C. Hancock. Available from the Colorado Railroad Museum, 17155 West 44th Avenue, P.O. Box 10, Golden, CO 80401-0549; phone 800-365-6263; website www.crrm.org. Hardcover, 256 pages, black and white and color photos, $49.95 plus $3.75 shipping.

Ruby Canyon and the Desert railroad books, ruined by a fire and photographed by crews still. That is, until displaced writers who includes Contented fans in a glimpse into the inventive character of Ruby Canyon as were from the cliffs above as well as at river level, as dams as well as at sunset. Enjoy from Rio Grande, Southern Pacific and Contemporary Union Pacific we were held aware as well as diesel owners across a promised widen this volume.

For Sale Enamel's Names & Numbers

By Geoffrey A. Douglas. Available from Old Publishing Co., 1307 Winding Creek Court, Louisburg, KS 66053-9779; Hardbound, 176 pages, black and white and color photos and illustrations, $39.95 plus $4.00 shipping and handling.

Second only to Mark Twain, Ralph Emerson was perhaps the most commonly quoted citizen of America, and although the quotations have become a treasured piece of Americana, the great writers and historians like Ralphs Emerson, architectural experiments. Five were greater than those carried on the rest of the 19th century, and in all the first 75 years, by the

Ralphs Bulletin

New York Central Railroad and its predecessors. Early users also appreciate having an index that lists the pages that the company correctly labeled as "engines," which were as scarce as the snows of the Great Steel Fleet.

Along the Baltimore & Ohio Railroad from Cumberland to Grafton

By Mario Lucy Mallamaccio. Available from Amazon, Trackside Press, Chestnuts, St. Croix, Avon, BA4 4HN, tel. 0117 972 4777, e-mail: sales@trackside.co.uk. Softbound, 8-1/2 x 11 inches, 128 pages, black and white photos, $19.99 plus shipping & handling.

Delving the back of the railroad has an extremely important transportation and shipping history to thousands of people and businesses in Pennsylvania, Maryland to this book an images from every B&O bridge and station from Cumberland, Maryland to Connellsville, Pennsylvania, in 1951. Many of the scenes that overlook along the tracks of tracks are depicted in these vintage photographs. Experience the coal and coke trains of the 1950s or 1930s through people from many different locations who had one thing in common: the railroad.

Big Grande Trackside with Joe Fugate

By James Fugate. Available from Morning Sun Books Inc., 9 Pleasant Lane, Scotch Plains, NJ 07076. Softbound, 128 pages, color photos, $49.95 plus shipping & handling.

Joe Fugate's progression of the Rio Grande was that of a positive railroader. We climb up the passenger ladder from Train Engineer to Assistant Superintendent to Division Engineer during the 1950s and the 1970s to chronicles through the color photographs he took while on the job that signals Trackside column shows this wonderful photography and Fugate's enthusiasm for the work in this 128 page book.

Kansas Central Kansas City

By Jeffrey Spruce. Available from the Kansas City Star, photos (B/W)

(Continued on Page 8)

Decals for Union Pacific's Latest!

Big changes are afoot at Union Pacific for the year 2000, and MICRO SCALE is on top of it all. DECALS for UP's newest SD70Ms are now available, coincide with the return of the winged nose logo. Other new UP decals are listed below...

HO/N Catalog $1.00 G/S/O Catalog $3.00

MICRO SCALE

21st CENTURY LIMITED

National Model Railroad Association
2000 National Convention
San Jose, California

There are dozens of well-known reasons to be in San Jose in 2000. (July 30 to August 6, 2000 to be exact...)

The Pacific Coast Region will be the host for the 2000 NMRA Convention to be held in San Jose, California on July 30 - August 6, 2000. This will be a convention that you won't want to miss!... clinics!... layout tours!... a huge train show with all of the major manufacturers!... and more! Don't miss it!

REGISTRATION FORM

Please clearly print your name as you want it to appear on your badge - use back of form to add additional names

Name _____ NMRA # _____

Name _____ Region Name _____

Name _____ Daytime Phone ( ) _____

Address _____

City/State/Zip _____

E-mail _____

Special Interest Group (if any) ☐ NTRAK # _____ ☐ LSMG
☐ NTM ☐ Circus Modelers ☐ OPSIG ☐ Other _____

Fare Calculation

Adult Full Fares: Non-youth will receive a bonus prize at the convention (possibly a discount on a tour or a luncheon, etc.) - details will be mailed in January. _____ @ $100 each = $ _____

Youth Fares: (Children over 6 and under 16 years of age on 7/30/00) Under 6 are free except on tours) _____ @ $ 50 each = $ _____

At least ONE registrant must be an NMRA or NASG member. If not, please include $36 to join the NMRA. If one of you is already a member, write your membership number in the space at right(if spouse, you do NOT have to pay the $36 fee) _____ @ $ 36 each = $ _____

TOTAL = $ _____

Payment Information

Payment Type: ☐ CHECK CREDIT CARD ☐ Visa ☐ MasterCard ☐ American Express

Card No. _____ Expiration Date _____

Name on Card _____ Signature _____

Complete this form and return it with payment (in U.S. funds only) to Bob Ferguson, 630 Fig Tree Lane, Martinez, CA 94553. Checks should be made payable to "21st Century Limited". Please do not send cash. Information on clinics and tours will be mailed in January. Day Passes will be available at a later date. For more information, call Bob (xxx) xxx-xxxx

Revised 10/30/99

ProTrak
for Windows

Complete Operations Software

Train Signaling on Software

The Working Weightscale

HomaBed

Bertani's Billiards

MINI-PROTOTYPE SOUND UNIT
Fits G Thru N Scale! $80.00

BRIGHT WHITE L.E.D.s for HEADLAMPS

Realistic Backgrounds

Purchase On the Internet
www.RealisticBackgrounds.com

Real Rail Effects, Inc.
presents
Sound Systems
for All Scales
Tsunami
Tsunami

Great Prices
- Complete or partial DCC installs
- Choose sounds, levels & speed
- Custom integrated sound & lighting
- Provides high quality realistic sound in
- Installs in locomotive or any

Low Stock
- Tsunami, ESU and more
- Large sound library available on
- Many sounds and effects
- Video available
- Video available

Booth #304

Tsunami
3D Details
Tsunami
Tsunami

Woodland Miniatures, LLC

Need a signal solution?

ELITE
HO Code 83
Complete Line Of 20 Turnouts, Crossings, Wire and clips
By PECO

Especially Designed for Command Control

NMRA
National Model Railroad Association
Sandusky

The
INNOVATOR
WALK-AROUND
THROTTLE

RAM TRACK NEW FOR 2000
You Ask. RAM Track Responds!!

SignsCreative

La Belle Woodworking Company
Makers of the World's Finest Wood Model Railroad Kits

TRAIN SHOW

Saturday
August 28, 2004

9:00 a.m.–3:00

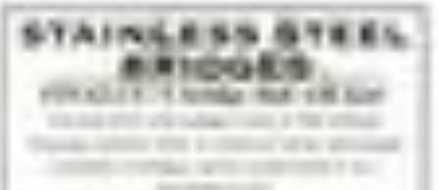
Display Shelves For Your Train Room!

GLENN SNYDER DISPLAY SYSTEMS

NICHOLAS SMITH TRAINS

GROENBERG SHOWS

RUBBER ROADBED



STAINLESS STEEL BRIDGES

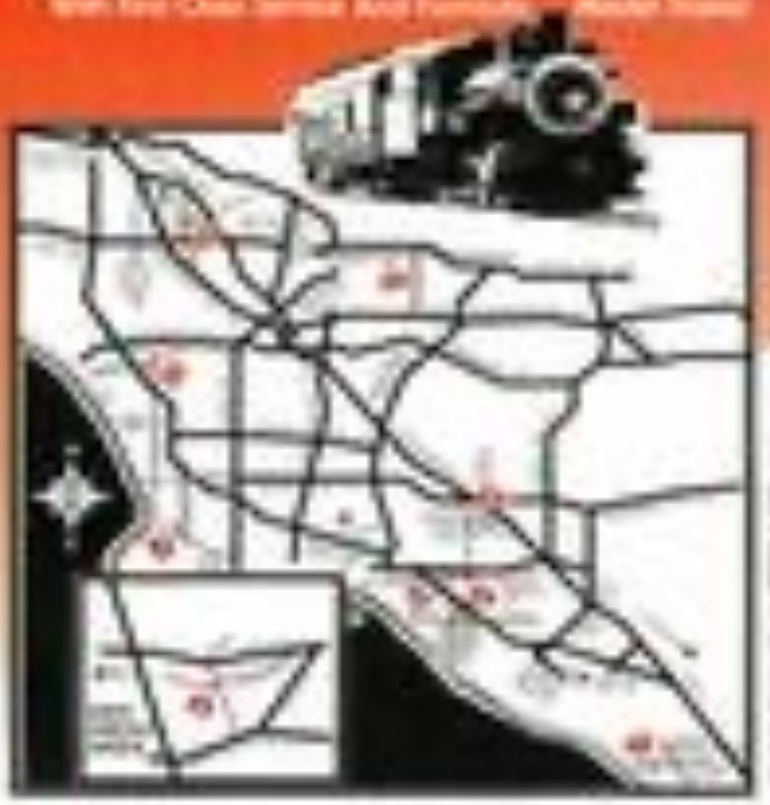
The Village Depot

Tell advertisers you saw their ad in: CLASSIC TOY TRAINS

You Can Travel Far And Wide And Never Find As Many Great Model Trains As You'll Find In

The Model Railroad Capital of the World

More Quality Model Train Stores Than Anywhere On Earth With First Class Service And Friendly Model Trains!



Southern California Model Train Specialists®

- **All Aboard Model Railroad Emporium**
- **Arbor Model Trains**
- **Aurora's Trains**
- **Bhagwat's Big Trains Emporium**
- **Brighton Whistle Stop**
- **Hazel's Hobby Shop**
- **Kurt's World**
- **The Toy Train Shop**
- **The Train Shack**

PROVIDING SERVICE TO MODEL RAILROADERS ALL YEAR LONG

CATCH US ON THE WEB AT WWW.ARMDA.ORG

EVENTS

Pacific #4000 & 10-2 & Union Pacific #4800 & 10-2

Three Barrels of Steam

S Scale

Announcing TM's *I Love Toy Trains* Limited Edition Freight Set

1996 [illegible]

- Runs on flyer "two-rail" track
- Available at fine hobby shops nationwide
- Installed Sunset music wire hand grabs
- Affordably priced at just $34.95
- Fully assembled, ready to run
- "Grip 'n Go" operating couplers
- Also RP-25, code 110 wheelsets
- 12 roadnames are available

Step up to the Realism of S Scale

Beautifully appointed, our 40' Wooden "Billboard" reefers features opening roof or bunker door, die-cast metal trucks, KD brake system with vertical brake wheel shaft and much more. To order or obtain more information, including a list of hobby shops carrying The Showcase Line products, call 1-800-443-0303. Our 2000 S Helper Service 48 page 4-color catalog is available for $3 shipping and handling. Visit our Web site at www.showcaseline.com

The Showcase Line

S Helper Service

Todd's Train Depot

FREE REPAIR PARTS

64 pg. Parts Catalog

Updated, 24 New Pgs.Lionel&Flyer Parts

Best Source Retail & Wholesale Pricing

TRAIN REPAIR PARTS

A Division of Hobby Supplies Sales

www.TrainRepairParts.com

JULES TOY TRAINS

The Toy Train Operating Society

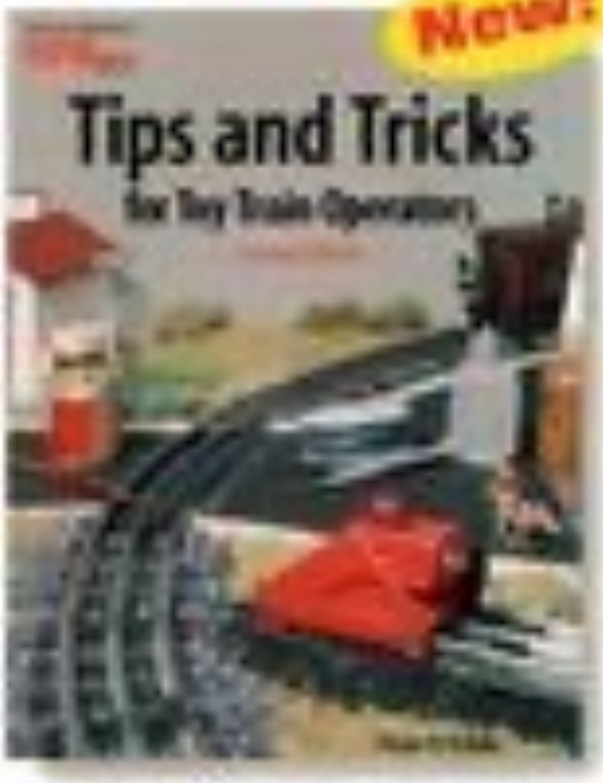
www.ttos.org

EVENTS

CLASSIC TOY TRAINS MAGAZINE

presents

Toy Train References



Tips and Tricks for Toy Train Operators, 2nd Edition

Increase your knowledge and enjoyment of toy trains! Features 144 helpful tips that will improve the performance and appearance of your toy trains. Includes color photos and easy-to-follow wiring diagrams. Pinpoint problems in toy trains. Get dates, prices, rarity, and variations of Lionel, American Flyer, Ives, Marx, and more! 8-1/4 x 10-7/8, 96 pgs., 128 color photos. Softcover.

10-8260 • $16.95

Toy Train Repair Made Easy: 21 Lionel Postwar Projects

Learn how to take it apart, fix it, put it back together, and make your model train run smoothly and safely! Step-by-step instructions in this booklet for serious model railroaders will help you get your collection running. 8-1/2 x 11, 72 pgs., 97 color and 110 b&w photos. Softcover.

10-8259 • $16.95

Track Plans for Toy Trains

The experts and guides to choosing and constructing great track plans for scale, modern, and large O and O gauge layouts. Learn how to select the best track for your operations. Plans for operating and display layouts, including accessory layouts, are fully illustrated. Softcover.

10-8256 • $9.95

Realistic Plastic Structures for Toy Train Layouts

Turn ordinary kits into extraordinary scenes with detailing, dioramas, and more! Learn how to create realistic structures and add exquisite scenery, trees, people, vehicles, and accessories. Illustrations and instructions for creating unique backdrops. 8-1/4 x 10-7/8, 96 pgs., 75 color and b&w photos. Softcover.

10-8258 • $14.95

Ask for these books at your favorite hobby retailer or bookstore! Or order direct:

Call 1-800-533-6644

Order online www.kalmbachbooks.com

CLASSIC TOY TRAINS

DEPARTMENT 56
Villages
Hundreds of exquisite, lighted buildings and accessories
that look great on "O" and "S" layouts
Free shipping! No sales tax outside of California!
Count full line, color catalog $5.00
ALLIED MODEL TRAINS

TOY TRAINS OF YESTERYEAR

OUR SPRING/SUMMER 2000 FULL COLOR CATALOG

will be available this Spring, along with our list, featuring our usual array of top Quality American and European Antique Toy Trains, Accessories, Great European Stations and Toys. Special feature in the Winter Catalog (Early American Manufacturers.)

Our list features many bargains for the operator.

– SUBSCRIBE NOW –

One issue - American: $6.00 European: $6.00 Both: $10.00
Yearly (3-4 issues) - American: $15.00 European: $15.00 Both: $28.00

Our catalogs feature Quality Closeup, Color, Photos with descriptions and prices, which make them a valuable Reference Guide. Items that we cannot fit in the catalog will appear on the accompanying list.

TOY TRAIN AUCTIONS

BUZ & NORMA RAY / BDS AUCTIONS

MARK YOUR CALENDAR WITH THESE DATES

Saturday, September 23, 2000 Saturday, December 2, 2000

Saturday, February 3, 2001 Saturday, May 12, 2001

For starters we have outstanding **POSTWAR LIONEL TRAINS** to be auctioned on Saturday, September 23, 2000. A few highlights include **27 AEC, 65 Handcar, 69 Motor Maint Car, 98 Minuteman, 3 Different 3435 Aquarium Cars** (inc. **TANK1 & TANK3**. That's only the first stop! Who knows what treasures are waiting to be found?

Auctions held at the Golden Gavel Auction House in Marshall, Michigan 1/4K at Exit 110
For additional information please contact:

Buz & Norma Ray
123 Santee Way
Loudon, TN 37774

Phone: 865-458-6554
Fax: 865-458-1843

Email: buznorma@aol.com

Web: www.buznorma.com

In the July issue of

Model Railroader

Kevin Shanahan's Union Pacific layout

San Jose Central track plan

UP Challenger chair car drawings

To get your one copy of MODEL RAILROADER, call your local hobby shop or newsstand or call

1-800-533-6644

Visit our web site at www.modelrailroader.com

From the publishers of CLASSIC TOY TRAINS

In the July issue of

TRAINS

Sacred Central Illinois

One railfan's paradise

The Great Circus Train

A Colorful Wisconsin rail tradition

On Location: Ardmore, Okla.

BNSF's line through Tornado Alley

New York Cross Harbor

To get your July copy of TRAINS, call your local hobby shop or newsstand, or call

1-800-533-6644

Visit our web site at www.trains.com

From the publishers of CLASSIC TOY TRAINS

In the June issue of

Garden Railways

Bud Hunter's Rio Grande Garden Railway

A preview of railways at the National Garden Railway Convention

Build structures from concrete

To get your June copy of GARDEN RAILWAYS, call your local hobby shop or newsstand or call

1-800-533-6644

Visit our web site at www.gardenrailways.com

From the publishers of CLASSIC TOY TRAINS

CLASSIFIED MARKETPLACE

PUZZLED ABOUT CLASSIFIED ADVERTISING?

CLASSIC TOY TRAINS

Shop ON-LINE and
www.MAINHOBBY.com
LIONEL

Standard Gauge
Classic Train Track
ESE products

The TrainMaster v3.0
Free 30-Day Version

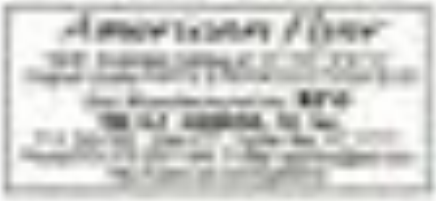
Make Your Dreams A Reality
Custom Model Railroad Builders

VINTAGE

ARTISAN

JUNCTION

Want your own WEBSITE?
with your YOURNAME.com?



THE TOY DOCTOR

"The Easy Way to Assemble & Disassemble Tools."

YOU RUN THE TRAINS SO WE'LL RUN EVERYTHING ELSE

LELAND'S
TOY TRAINS
Authorized Lionel
Sales and Service
Buy • Sell • Trade • Repair

As valuable as the mid-'50s Lionel "Boy's Set."

MODELCRAFTERS

CLASSIC TOY TRAINS

Add your ad to the internet!

CLASSIC TOY TRAINS

BALLAST

FREE INK WELL

Classic Toy Trains Classified Advertising

Put Your Shop on the Map.

CLASSIC TOY TRAINS

ADVERTISERS INDEX

NEXT in CLASSIC TOY TRAINS

O or S gauge?
The first S scale Flyer more on O gauge trains

Gone to the animals
Cattle, giraffes, and even fish ride on Lionel's oceliner cars

Century of competitors
A who's who of Lionel's toy train challengers

Milwaukee Road layout
Visit an enticing O gauge layout full of Midwest trains

Wiring tandem diesels
Two engines using one reverse unit

Product reviews
MTH Class5 steamer, Lionel PT Williams PA-1 & GL2

To get your copy of the September issue, visit your local hobby shop or newsstand, or call

1-800-533-6644

Kalmbach Publishing Co., P.O. Box 1612, Waukesha, WI 53187-1612

Visit our web site at www.classictoytrains.com

ROAD TEST RESULTS

PAST MASTERS

ROAD TEST REPRINTS

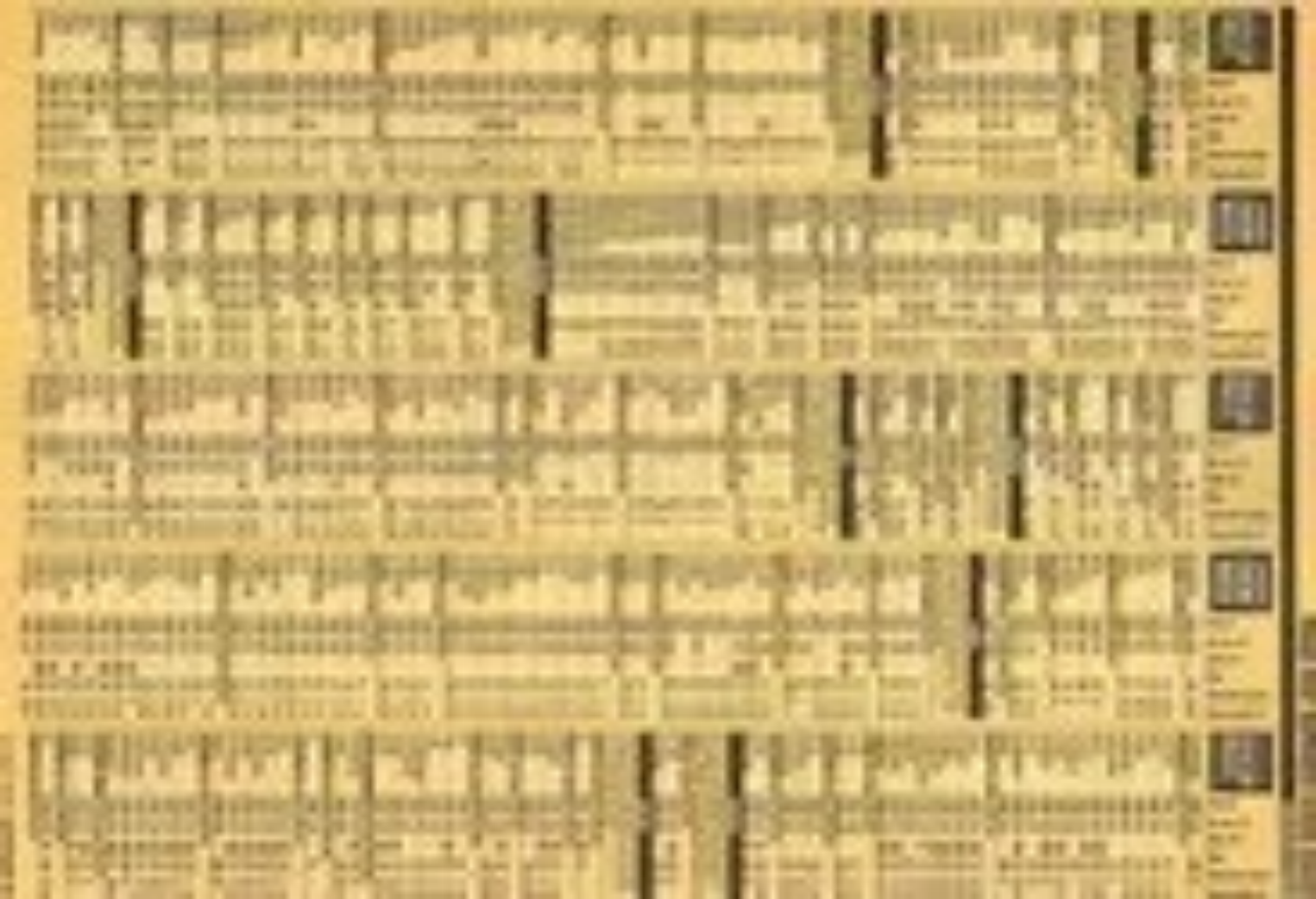
PHONE THE HOTLINE ON 01235 534323

BUY 2 GET 1 FREE

AUTOCAR LIBRARY

BUYING USED

NEW CAR PRICES



AUTOCAR

CARS FOR SALE

LET US FIND THE CAR YOU WANT FOR FREE

THE UK's NUMBER ONE CAR SUPERMARKET

www.motorpoint.co.uk

SAVE £20,000

HALF PRICE

Derby 01332 347357 www.motorpoint.co.uk

Thames Tunbridge Wells

WHEN YOU CALL PLEASE MENTION AUTOCAR

MKG 3000.com

0208 894 7504

INDEPENDENT ALFA ROMEO SPECIALISTS

SPORT

Lively Italian beauty available

SPECIALIST CARS

DIRECT

Brand New & Un-registered

01228 483000

AA

Don't fork out on a banger.
Let us give it a grilling.

Car Buyer Inspections from £89

0800 169 5019

WANTED

Whites Audi

Audi

Barons

Farnborough 01252 [illegible]

Maidstead 01628 [illegible]

BMW in the South

Visit our website

www.baronsbmw.co.uk

for all your BMW

requirements or telephone

for a stock list.

01293 772000 Cronk 01737 271271

Compare our prices... we do!

Tel 01442 [illegible]

Over 100 Vehicles Available

www.altwoodbmw.co.uk
Cooper
Burton & Deakin

Selling your BMW?
Godfrey Hall
Cooper
Wanted

Regtransfers.co.uk

CONTRACT HIRE
Contract Hire Specialists
Volvo
Audi
Bentley
Ford
Honda
Jaguar
Land Rover
Mercedes
Opel
Peugeot
Renault
Rover
Toyota
Volvo
VW
+44 (0)1904 693456

HONDA

Amazing Value

at Westgate Honda

Choice of Autos & Manuals
Most Models in Stock
Nationwide Delivery Available

WESTGATE HONDA

01472 358625

IMPORTS

easyimport.com

H.R. OWEN

LOTUS ELISE

£20995

Jeep
WHEN YOU CALL
PLEASE MENTION
AUTOCAR
Jeep

340R
LIMITED
AVAILABILITY
01483 281000

Nick Whaler
SPORTSCARS

nelmes
of Romford
Exige
orders now
being taken

THE MAZDA DEAL YOU WANT

find a mazda

eureka!

More dynamic ability
than just about any car
ever made

MITSUBISHI

Soul to the Masses

PARK LANE

The premier UK based
import car specialist
0161 944 1000

SUBARU

VW GOLF

The TVR Centre
TVR Owen TVR

TVR

BRUNDLE

TVR

Tel: 01353 611880 Fax: 01353 611866

www.brundle.co.uk e-mail: info@brundle.co.uk

Once a Volkswagen, always a Volkswagen.
Listers
Orbital

Whites Volkswagen

www.vw.co.uk

VOLKSWAGEN

HOW CAN YOU REACH MILLIONS OF CAR BUYERS? FREEPHONE 0800 289209 TO FIND OUT

AUTOCAR

APPOINTMENTS

CLIVE SUTTON

HOW CAN YOU REACH MILLIONS OF CAR BUYERS? TELEPHONE 0208 288 3535 TO FIND OUT

AUTOCAR

WHEN YOU CALL, PLEASE MENTION AUTOCAR

Technician

CAN OTE

Altwood

Sales Executive

Volkswagen

Argent

"The way people buy cars is changing"

APPOINTMENTS

AUTOCAR TELEPHONE 0208 247 8678 OR FAX: 247 8763

Sales Executive

Stephen James

Recruitment Consultant

Save £14,195
on Brand New Cars
Tel: 0845 6084 222

The Overland Models 21

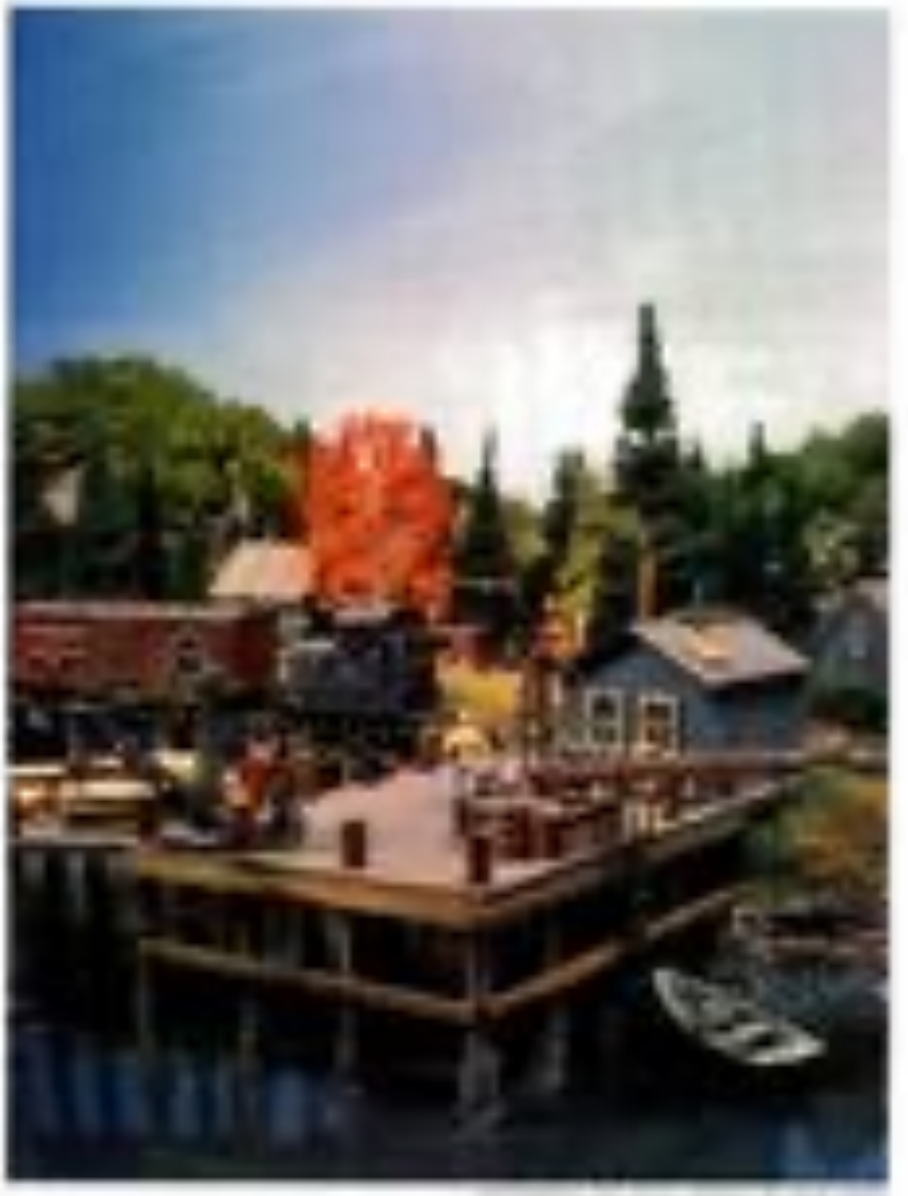
The Overland Models 21st Century Express is pulling into the San Jose Convention Center with a wide variety of beautifully handcrafted brass scale model railroad equipment and structures in N, HO and O Scales. Each of our many models is a faithful reproduction of an actual prototype. We have the largest selection of brass models on

st Century Brass Express!

the market today . . . stop by our booth (No. 186-189) to see for yourself . . . and to see the massive Coos River Bridge diorama by Doug and Jackie Hale. We look forward to meeting you.

See us at Booth No. 186-189 at the NMRA 21st Century Limited Convention at San Jose, July 30th-Aug. 6th

Overland Models, Inc.



Done fishin'

The fleet is out and won't be back until the rainmakers' day is done. However, one fisherman, home early because of faulty equipment, warily contemplates another way of life as the little gasoline switcher works the scenery at Gull Island – the wife also furthering in the middle left of a fishing village. ✦

Corrugated Passenger Car

4-Car Sets

Expected Delivery in August/September

ITEM #	ROADNAME
106-1501	Cascades Pacific, Set A
106-1601	Cascades Pacific, Set B-1
106-1602	Cascades Pacific, Set B-2
106-1502	Amtrak, Tahoe & Sierra Pc, Set A
106-1603	Amtrak, Tahoe & Sierra Pc, Set B-1
106-1604	Amtrak, Tahoe & Sierra Pc, Set B-2
106-1503	Caltrain, Bombardier & Gallery, Set A
106-1605	Caltrain, Bombardier & Gallery, Set B-1
106-1606	Caltrain, Bombardier & Gallery, Set B-2
106-1504	Powhatanee, Set A
106-1701	Powhatanee, Set C-1
106-1702	Powhatanee, Set C-2
106-1505	Sunrise, Set A
106-1703	Sunrise, Set C-1
106-1704	Sunrise, Set C-2
106-1601	Wilson, Set D
106-1901	Glamberrosarian, Set E

For specifications of models for track and please visit your local hobby shop or our web site

www.katousa.com

EMD E8/9 Locomotive

Expected Delivery in June

ITEM #	ROADNAME
106-2001	Powhatanee, A-A Set
176-2001	Powhatanee, B-Unit
106-2101	Amtrak, Baltimore & Gallery, A-A Set
176-2101	Amtrak, Baltimore & Gallery, B-Unit
106-2201	Cascades Pacific, A-A Set
106-2301	Sunrise, A-A Set
176-2301	Sunrise, B-Unit
106-2401	Amtrak, Tahoe & Sierra Pc, A-B Set
106-2402	Amtrak, Tahoe & Sierra Pc, A-B Set
176-2304	Amtrak, Tahoe & Sierra Pc, A-Unit

KATO U.S.A., INC.

Travel through time to the early days of railroading with the

Denver Rio Grande

19th Century 4-6-0 Locomotive and Overton Passenger Car Set

RAIL KING

POWER and *Variety*

Keep your branch lines and commuter routes running with a **RDC Budd Car Set,** *available in* **New York Central** *or* **Canadian Pacific markings.**